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THE EFFECTS OF INTERNET MISUSE
ON PRODUCTIVITY

THESIS

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THE EFFECTS OF INTERNET MISUSE ON PRODUCTIVITY

THESIS

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Master of Science in Information Resource Management

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<div align="right">Scott Allen Stevens</div>

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Abstract

The Internet has become one of the most used technological devices in the United States. Air Force members too, have become dependent on the Internet to complete their work. The Internet offers many features that are important to the members of the Air Force, but the Internet also offers features that may interfere with the member completing their assigned duties. This thesis will address the misuse of the Internet by Air Force personnel and how the Internet affects the productivity of the members within their work environment. This thesis also looks at the problem of personal use of the Internet and what steps the supervisors can take to decrease Internet misuse. Finally, this thesis will propose a new Internet policy for the Air Force.

The research showed that the sample population believed that the Internet did not affect their productivity levels while at work. The research also showed that the members believed that the misuse of the Internet did not outweigh the benefits that the Internet provided to the members. The members also felt that the supervisor should play a larger role in controlling the Internet as well as establishing local Internet policies in accordance with the Air Force's current policy.

THE EFFECTS OF INTERNET MISUSE ON PRODUCTIVITY

I. Introduction

Research Issue

Chapter One will present a research plan to study how the Internet affects the

productivity of the members within the Air Force. This thesis will specifically investigate

how the use of the Internet by an employee for personal use at work can affect

productivity. First, it provides a background for the subject and examines the overall

problem of Internet abuse within the workplace. This chapter will review the current

literature that is available within the Information Technology (IT) field, describe the

assumptions, examine the scope of the thesis, present the standards that will be involved,

and explain the approach and methodology that will be used for this research effort.

Background

> The Internet is an amazing information resource. Students, teachers and researchers
> use it as an investigative tool. Physicians use it to learn more about unfamiliar
> diseases and the latest medical developments. Ordinary folks use it for shopping,
> banking, bill paying, and communicating with family and friends. People all over
> the globe use it to connect with individuals of other countries and cultures.
> (Griggs, 1997:1)

It is well recognized that the Internet and the increasing power of the personal computer

have transformed industry's view of computers. In many ways, information technology

has helped to make the workplace more efficient and productive. "It's opened up a whole

new world, you never know exactly where the journey will take you. Doors open and you

take off in new directions. You can learn about anything, I mean anything! And you never have to be lonely, there's always someone out there to connect with" (Griggs, 1997:1). Today, with the advanced technology that is now available in the workplace, employees are tempted to experience the full range of capabilities that Information Technology can offer, more specifically, the Internet. The Internet is probably one of the most enticing technologies we have on today's computer market.

> The culture of computing encourages an individual to spend time on line. It encourages the individual to seek out information from the Internet rather than asking people in their community. It takes us away from our locale and puts us in cyberspace. (Masko, 1997:1)

The problem that many organizations are facing is the fact that employees are using the Internet for entertainment, not just as a work tool. The Internet has become one of the most widely used technological advances in recent history. Information can easily be acquired. As with many organizations, the Air Force is faced with determining how the Internet is affecting the productivity level of the Air Force's employees.

> Conventional wisdom has it that one of the greatest boosts to Air Force productivity is the computer. But authors and computer visionary argues that this electronic tool has become a threat to humanization and productivity. Is this the best way to spend your day...spending many hours in front of a tube?
> (Masko, 1997: 1)

Employees may be spending more time surfing the Internet than actually completing their work. If the employees are spending more time on-line than completing their assigned duties, this could cause a decrease in the productivity level of the Air Force. Misuse of the Internet is an area of concern primarily because there are no current measures that assess productivity created by information technology in the workplace.

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The personal computer and other technological advances have had a major impact on the business world. The past several years have seen tremendous technical advancements facilitating the widespread use and increased acceptance of the microcomputer in the workplace and associated technologies, such as Internet access. (Quintero, 1996:1)

Unfortunately, organizations may be losing some of the gains provided by the Internet.

Statement of the Problem

This thesis will address the misuse of the Internet by Air Force personnel and how the Internet affects the productivity of the members within their work environment. Personal use may be described as an employee using the Internet at work to read the *USA Today*, checking his or her mutual funds or stocks through Yahoo, downloading pornographic photos, or playing games. These are examples of items on the Internet that could influence productivity levels and hinder an individual's job.

Establishing Air Force Policies

This thesis is proposing that the Air Force should establish a new guideline that defines personal, official and authorized use of the Internet by Air Force personnel during the duty day. A definition of official use should be consistent with current Air Force policies, "Official use should include normal work-related Internet use and a reasonable amount of Internet use to increase professional knowledge" (Baner and others, 1996: 41). One way the Air Force could establish new guidelines for the use of the Internet would be to set the guidelines similar to that of the telephone policy. The Joint Ethics Regulation (JER), 5500.7-R states that the use of the federal government telephone systems will be used for official business. Such official business calls may include emergency calls and

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calls that the Department of Defense (DoD) determines to be in the best interest of the

Federal Government. The Joint Ethics Regulation also defines calls that are <u>in the interest</u>

<u>of the Federal Government</u> as being personal calls such as calls to speak to a spouse or

minor children or to arrange for emergency repairs to residence or automobile. These calls

may be made during working hours as long as they are consistent with the following

criteria (DODD 5500.7, 1993: paragraph 2-301,4):

1. Calls do not adversely affect the employee's performance of their official duties;

2. The calls are of reasonable duration and frequency;

3. The calls serve as legitimate public interest by keeping the employee at their desk instead of using a commercial system;

4. The calls do not adversely affect the Federal Government communication system by using the system for pornography; chain letters; or unofficial advertising.

5. The calls do not overburden the communication system and long distance calls are not charged to the government (AFI 33-111, 1998: paragraph 5).

The proposed Internet policy should also include a definition of authorized use

stating how the members can use the Internet and electronic mail while at work. The

definition of authorized use of the Internet should be considered along the same lines as the

government telephone.

> The definition of authorized use should include a reasonable amount of personal use: to include emergency communications to a family member while the member is traveling on official business; and normal personal communications such as a prudent amount of e-mail, real estate downloads, and communications with an auto or home repair service. (Banner and others, 1996: 42)

As with the telephone, the local commander should have the power to set the guidelines on what he/she believes is the appropriate limit for personal use of the Internet within the organization in accordance with the Air Forces Internet policy (AFI 33-111, 1998: 5).

Air Force publications do not clearly define official business as it relates to the Internet. Air Force Material Command (AFMC) Instruction 37-102, Transmission of Information Via The Internet states that, "government-provided hardware and software are for conducting official government business" (AFMC Instruction 37-102, 1996: paragraph 2). Another way to define official use is that which is allowed and authorized use as what the commander can authorize in addition to the Air Force Instruction. (Baner and others; 1996:35). As information technology increases, more and more non-official business activities will be conducted on the Internet. However, the Air Force must find ways of controlling the personnel Internet activity uses while at work.

Assumptions

For the purposes of this thesis, it will be assumed that the Internet will increase office productivity (output per man-hour) if used correctly, but that employees of an organization will misuse the Internet for entertainment, that is for activities not work related (Buggie, 1997: 43). Employee misuse of the Internet will cause the productivity to decrease in an organization. Several factors currently have a negative impact on productivity provided by information technology: investments required implementing information technology, misuse of the Internet, lack of current measures of productivity provided by the Internet, and the perception of information technology. For now, we will

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assume that all of the items have a negative affect on the employee's productivity level while at work.

Research Question

The purpose of this study is to evaluate how the misuse of the Internet by Air Force personnel affects the productivity level of an organization. Is the abuse of the Internet by Air Force personnel affecting the Air Force's productivity level?

Investigative Questions

In order to answer the research question, the following investigative questions are answered throughout the thesis.

1. Does the Internet increase the productivity level of an Air Force member?

2. Does the Internet increase the productivity level of an organization within the Air Force?

3. Does the Air Force have a problem with Internet misuse?

4. Does the misuse of the Internet outweigh the benefits of the productivity of the Internet?

5. What should supervisors be doing to defend against the misuse of the Internet by Air Force personnel?

6. What recommendations can be made regarding how the Air Force views personal use of the Internet within an organization?

7. Why are Air Force personnel using the Internet?

8. How do Air Force members perceive the Air Force policy on personal use of the Internet within their organization?

This research will strive to provide information on the current level of Internet abuse and how the abuse affects the productivity levels within the Air Force. Additionally, this research will attempt to provide measures that will help supervisors within the Air Force to determine if their subordinates are misusing the Internet during the duty day.

Research Approach

A pertinent and comprehensive analysis of the current research literature was first conducted to help expedite the understanding process of how the misuse of the Internet can affect the productivity of an Air Force organization. Next, a survey instrument will measure the level of Internet abuse that has occurred in the Air Force. Through the use of a combined supervisor and subordinate survey instrument, the researcher will assess the level of Internet abuse among Air Force personnel and how that abuse affects the productivity level of the organizations. Finally, recommendations for supervisors to help track the level of Internet abuse within the Air Force will be made.

Research Layout

The literature review in chapter II discusses some of the underlying constructs in today's current literature that were used to develop the conceptual framework behind determining how the misuse of the Internet affected the productivity level of the Air Force. Chapter III discusses the methodology that was used in creating and conducting the combined supervisor and subordinate surveys. Chapter IV discusses and interprets the data gathered from the supervisor and subordinate survey instrument to determine if employees are abusing the Internet during duty hours. Chapter V will make conclusions and

recommendations on how Internet abuse affects the productivity level of the Air Force. Chapter V will also make recommendations on how to prevent Internet abuse within the Air Force, proposes an Internet policy for the Air Force discussing personal use and areas for future study.

Summary

This chapter provided an overview of the research issues concerning the eight investigative questions and the use of the Internet. The thesis research reviews the overall concept and direction of productivity within the Air Force and how the lack of proper measures affects the productivity level of the Air Force. Specifically, it examines how the misuse of the Internet by an Air Force member can decrease the productivity level of an organization. The main area of concern that this thesis will be addressing is the issue of Internet misuse and establishing new guidelines that define official use, authorized use, and personal use of the Internet by Air Force personnel during the duty day. Chapter II will provide a review of the current literature related to Internet abuse, productivity levels, and the measures the Air Force is currently using to prevent Internet abuse within the work environment.

II. Literature Review

Chapter Overview

Chapter II will provide the reader with background information relating to the misuse of the Internet by Air Force personnel and how the misuse of the Internet affects the productivity of the members within their work environment. It will provide a review of the existing research into the effects of Internet misuse and how the misuse affects an organization's productivity level. Chapter II will also look at the problem of personal use of the Internet and how it affects the productivity of an organization as well as limiting the organization's network productivity. Chapter II will specifically address some of the characteristics of the Internet and what types of activities are official or unofficial.

Definitions of computer abuse, misuse of the Internet, personal use of the Internet, and productivity loss are important for the understanding of the thesis focus. Computer abuse is defined as

> Any incident associated with computer technology in which a victim suffered or could have suffered loss, and a perpetrator by intention made or could have made gains. Any incident is identified as computer abuse if there is information to be gained by studying such incidents that will make computers safer in the future. (Parker, 1976:12)

A more specific definition of computer abuse and how Air Force personnel are misusing the Internet would be any misuse of information system assets, such as computer hardware, software, and the Internet service providers.

For the purposes of this chapter, the definition of Internet misuse is an individual using the Internet during the duty day for purposes other than official business, that is not work-related, and that which causes a loss of productivity. An example of Internet misuse would consist of checking sports scores or the stock market prices. Personal use may be defined as an individual using government resources such as computers, Internet services providers (AOL, Prodigy, Yahoo), and E-Mail for uses other than official business that are not work related. The employees also benefit from the use of the government resources. Internet misuse is where the individual is using government resources to check sport scores or reading the newspaper while at work. Productivity loss may be defined as the loss of productivity experienced by an Air Force organization through their personnel misusing the Internet and not completing their assigned duties. The purpose of Chapter II is to conduct an exhaustive search of the information that is available on the Internet. A brief history of the Internet and its growth will be included to help the reader understand the Internet's role in productivity.

Internet History

"The Internet is simply a global connection of networks that are connected to computers, that are <u>connected</u> to people" (Baner and other, 1996: 2). The Department of Defense (DoD) first established the Internet in the late 1960's. In 1969 the DoD designed the Advanced Research Project Agency Network (ARPANET). The network was created to link DoD computers throughout the government. In 1972 the U. S. Department of Defense created the Transmission Control Protocol/Internet Protocol (TCP/IP) which was used to link different types of computers and networks. The reason that the (TCP/IP) was

created was to help link scientists from all over the country to transfer information from one kind of hardware and software platform to another. The Internet was based on the TCP/IP reference model (Laudon and Laudon, 1997: 286). Throughout the 1980's, the on-line community grew with the advent of the personal computer (Adams, 1996: 405). In 1983, the Defense Communications Agency made the Transmission Control Protocol/Internet Protocol (TCP/IP) mandatory for the ARPANET and the MILNET, a DoD network. After the TCP/IP was created, the commercial industry began to produce products similar to this type of standard. Today, with over 17,000 different networks using the TCP/IP protocol, these networks are the networks that make up the Internet (Musgrove, 1995: 4-5). The Internet is perhaps the best known and the largest implementation of a network, linking over hundreds of thousands of people all over the world. The Internet has a wide range of capabilities that many organizations all over the world are using to exchange information within their own organization or to communicate with other outside organizations (Laudon and Laudon, 1997: 272). "The Internet has an estimated fifteen to twenty-five million users in ninety-two countries and is growing at the rate of five to eight percent per month" (Adams, 1996: 406).

Today, the Internet provides many different features that offer Air Force personnel more of an opportunity to misuse the system while on duty. The most highly-used services offered by the Internet can be grouped into the following four categories:

1. Fast-changing information: news, sports scores, financial services;

2. Electronic Communication: e-mail, real-time conversations, conferencing;

3. Transactional Services: banking, shopping, travel reservations;

4. Entertainment: games, horoscopes, movie reviews (Adams, 1996: 407).

"The Internet is continually evolving and will likely be composed of different elements in the future" (Quintero, 1996: 9). The Internet is one of the fastest growing technologies in the computer arena. As changes are being made through the advances of the technology field, the Internet continues to expand the capabilities of the office worker. The Air Force needs to determine the best way to fight against Air Force personnel spending duty time searching the Internet for non work-related information, checking sport scores, or browse on the Internet. Furthermore, many of the features that are available on the Internet today are providing the Air Force personnel with more of an opportunity to misuse the Internet while at work.

The Problem of Internet Misuse

The problem that this thesis will address is the effect Internet misuse has on the productivity of an individual as well as an organization. One of the problems that the Air Force faces with <u>Internet misuse</u> is that there are no current guidelines on the personal use of the Internet during the duty day; there is no policy stating what an Air Force member can or cannot do while using the Internet for personal time. The Air Force should also be concerned about how Internet misuse affects the productivity of an organization's computer networks during the duty day. There are currently no productivity measurements that measure Internet misuse within the Air Force. Much of the Internet misuse that the Air Force faces comes from the fact that the Internet provides the Air Force member with different Internet activities that can lead to Internet misuse.

Characteristics of Internet Activity

The Internet provides Air Force personnel with a wide array of activities that can further their professional education as well as provide information to maintain their current knowledge of a career field.

> The Internet provides opportunities for quick and efficient disseminating of information to the public, distributing information throughout the Air Force, and accessing information from a variety of sources. Information may be sent between offices or individuals, or displayed on the web. The Air Force's goal for the Internet is to provide maximum availability at acceptable risk levels for Air Force members needing access for the execution of official business.
> (AFI 33-129, 1997: paragraph 2)

Internet use has increased dramatically over the past decade as far as a tool for sending, gathering and searching for information (AFI 33-129, 1997: paragraph 1). There are more and more people using the Internet every day and military personnel are no exception. It is important that the Air Force regulate the use of the Internet, through AFIs, local policy letters, and ensuring that supervisors are explaining to their subordinates what they can and cannot do while using the Internet. According to AFMC Instruction 37-102, (Transmission of Information Via the Internet) the following activities are deemed inappropriate use of the Internet or unofficial use of the Internet. These activities are prohibited and could result in an Air Force member being administratively, non-judicially or judicially punished for improper use of the Internet.

> (a) Personal use of E-Mail/Internet for non-governmental purposes, such as using the Internet to check sports scores, using chat-rooms, or downloading pornography

(b) Illegal, fraudulent, or malicious activities; partisan political activity; political or religious lobbying; or activities on behalf of organizations having no affiliations with the United States Air Force

(c) Activities for the purpose of personal or commercial financial gain. This includes, chain letters, solicitation of business or services, sales of personal property, etc.

(d) Storing, processing or displaying offensive or obscene material, such as pornography, hate literature, etc.

(e) Storing or processing classified information on any system not explicitly approved for classified processing

(f) Using E-Mail to circumvent or bypass the normal chain of command for official actions

(g) Annoying or harassing another person, e.g., by sending uninvited E-Mail of a personal nature or by using lewd or offensive language

(h) Using another individual's account or identity, e.g., by forging E-Mail

(i) Viewing, damaging or deleting other users' files or communications without appropriate authorization or permission

(j) Attempting to circumvent or defeat security or auditing systems, without prior authorization and other than as part of legitimate system testing or security research (AFMC Instruction 37-102, 1996: paragraph 2)

Official and unofficial uses of the Internet are important for everyone within the Air Force to understand because many of the previous examples that were discussed of unofficial uses of the Internet could contribute to the productivity loss.

Productivity

Within the Air Force, there are no current productivity measures that can demonstrate what types of productivity gains or losses the Air Force has experienced from the use of the Internet.

After reviewing and assessing the research to date, it appears that the shortfall of Information Technology (IT) productivity is as much due to deficiencies in our measurement and methodological tool kit as to mismanagement by developers and users of IT. (Brynjolfsson, 1993: 66)

The problem that the Air Force is faced with is that without the proper productivity measures the Air Force has no way to demonstrate what types of gains or losses are experienced through the use of the Internet. Information technology systems improve the ability of an organization to enhance competitiveness and enable the organization to compete with their competitors (Mirani & Lederer, 1994:157). This thesis applies the definition of productivity as related to the misuse of the Internet. Productivity related to Internet misuse is defined as: The use of the Internet by Air Force personnel for tasks and entertainment not related to work that affects the members output level.

"Productivity today is a different concept than it was in the past. In 1880, about nine out of 10 workers made and moved things; today, that is down to one out of five. The other four out of five are knowledge or service workers" (Drucker, 1993:50). Productivity is not just about people and resources; productivity is all of the resources within an organization or company working together, i.e., information technology and people (Drucker, 1993:50). The problem that many organizations are having today is that, after spending millions of dollars on information systems, they cannot measure the effects of information technology correctly to examine if it has made a positive or negative impact on the organization. Organizations are having trouble because many employees are abusing their information technology systems daily while at work. Explanations are needed to illustrate why information technology capital has not yet clearly improved firm-level

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productivity in manufacturing and service areas (Brynjolfsson, 1993:70). One of the reasons why information technology hasn't paid off like managers hoped, could be the abuse of the Internet by the employees and organizations not having the proper measures and other Information Technology resources to test if the productivity level has increased or decreased. However, a problem still exists in that organizations cannot measure how much productivity they are losing daily due to the misuse of information technology.

The area that concerns many organizations is that, as with any new technology, a period of learning, adjustment and restructuring may be necessary to reap the technology's full benefit (Magnet, 1994:80). Many of today's organizations spending millions of dollars to try to increase their employees productivity level, but the real problem is that the productivity level usually decreases while the employees are learning the new systems. Until the employee learns the new system there will be a period of adjustment. The preliminary studies show that the results may not be illustrating the actual value of information technology (Brynjolfsson & Hitt, 1996: 543). Organizations are investing more and more resources to ensure that their information technology systems are top of the line. The problem that exists now is that many of the organizations want a quick fix that will allow them to increase their productivity through the use of information technology (Metheny, 1994:24).

Normally productivity is mistaken to mean output per person, when productivity really is measured by output per man-hour (Buggie, 1997:43). "If it is true that the easy stuff has already been done -- the fat has been wrung out, producers have installed computers, and workers are working as hard as they can -- then how do you increase

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productivity in the future?" (Buggie, 1997:43-44). Unfortunately, the only thing that the managers are worried about is the cost of the systems, not the workers. This makes measuring the productivity of an organization difficult because of the fact that the employees are allowed to use the Internet as they see fit.

Today, more than ever, the Air Force needs to understand how to measure productivity levels of the organizations and how the Internet is affecting the current productivity levels. In most circumstances productivity tries to measure the effectiveness of the output of a product by observing how much of the inputs are used to produce the product. (Panko, 1991:191). The main idea of focusing on unit productivity will help an organization focus on the underlying efficiency of their work processes and how the processes affect the network productivity.

Internet Misuse Affecting Network Productivity

Often there are problems that occur with Internet misuse while at work and affect the organization's productivity level. Internet misuse creates a concern for the Air Force when the members are using the Internet for their own personal use that diminishes the productivity of the network. The Air Force needs to implement an Air Force Instruction explicitly stating when and where an Air Force member can use the Internet for personal use. The problem that most people do not realize is that when a user is connected to the Internet through the organization's network, the user is slowing down the network for the entire organization (Dryden, 1996: 56).

Organizations are losing network productivity because of the Internet activity from their employees. Many organizations today are using tools that monitor the Internet network utilization during the duty day. The Web traffic during a normal day can take up to 30 percent of the network capabilities (Dryden, 1996: 56). Many times the tools that measure the network productivity can also tell the systems administrator where their employees are going and what sites they're visiting. The problem that arises from the employees using the Internet for personal use is that the Internet will have a slower response time for sending vital information through the E-mail system (Dryden, 1996: 56). Today, more than ever, it is important for the system administrators to be able to show exactly how much of the network capacity is being eaten up by the Internet during the duty day. "One of the things about giving people access to the Internet is you're putting the largest possible productivity drain onto their desktops," says Mark Peabody, a research analyst with The Aberdeen Group Inc. in Boston. He also says many firms that give employee Internet access are discovering the potential for abuse. "A lot of companies are starting to wonder what these people are doing all day" (McCollum, 1998: 56). The personal use will also cause problems for the individuals who need to connect to the Internet to find information to complete a project or to find information for a customer (Dryden, 1996: 56).

They realize that the Internet opens a glitzy window out of boring cubicles. The web offers another way to goof off, like hanging out in the break-room, reading the newspaper, playing games or abusing e-mail. So similar rules should apply, said, Clare Price, a senior research analyst at Garnter Group. (Dryden, 1996: 56)

There are many activities within the office environment that have been contributed to a lack of productivity from the organization's employees within the Air Force. These include the use of the telephone, fax machine, desktop computer, newspapers, and now the Internet. "Users fritter away hours sending and receiving electronic mail, checking online news and downloading reams of data. They are information junkies and right now, you are probably sitting next to one. If you aren't, you probably are one yourself" (King, 1997: 106). Today, more than ever, the Internet may be one of the biggest contributors to the lack of productivity that the Air Force has had to deal with up to this point. "Early automated office machinery, (telephone and typewriters) gave employees the opportunity to conduct personal business on company time with company property" (Scheuermann and Langford; 1997: 847). There are several activities that may be similar to the Internet and its effect on productivity.

The first activity that affects an organization's productivity is E-Mail (Spamming). Spamming occurs, when an individual or another organization is flooding a user's in-box with unsolicited or unwanted E-Mail messages (Rooney, 1996: 44). The problem with spamming is that the user's in-box becomes filled with these unwanted messages which can slow the network down and lock up the user's E-Mail account. The user may lose time and productivity because he or she has to delete all the spammed messages, from their in-box.

The second activity that can affect an organization's productivity level is the use of the telephone.

> An appropriate analogy may be when the telephone was first made common, more and more official and personal business came to rely on the telephone. Now the telephone is so common in the office environment, business would come to a standstill if it were not available. Personnel would have to take time off from work to either take care of the personal business or go to a location that had a telephone to take care of the personal business. (Baner and other; 1996: 38)

The way that many organizations have fought back against employees wasting the organizations time is by setting up policies that explain what the employee can and cannot do with an official government telephone. The policies that the Air Force has established for personal calls over the Federal Government telephones are:

1. Calls do not adversely affect the employee's performance of their official duties;

2. The calls are of reasonable duration and frequency;

3. The calls serve as legitimate public interest by keeping the employee at their desk instead of using a commercial system;

4. The call does not adversely affect the Federal Government communication system by using the system for pornography; chain letters; or unofficial advertising;

5. The call does not overburden the communication system and long distance calls are not charged to the government (AFI 33-111, 1998: paragraph 5).

The third activity that can affect an organization's productivity level is the Air Force member playing games on the Internet during the duty day. "The development of personal computers allowed many employees to waste countless hours playing games under the guise of improving their mouse skills" (Scheuermann and Langford, 1997: 847). Many organizations from all across the United States are concerned about the fact that

many of their employee's access to computer games and the World Wide Web is going to lead to increased laziness among the employees within the workplace (Stuller, 1997: 16). "Some managers believe that games and Internet surfing are harmless ways for employees to ease pressures at work and to relax a little before heading home at the end of a workday" (Stuller, 1997: 16).

There are two sides to an employee playing games and browsing the Internet while at work. The main concern with playing games at work is that most of the games have to be downloaded into the company's network. Downloading games from the Internet wastes disk space, eats up server space as well as slows down the company's network (Stuller, 1997: 17). The average people who are playing games at work are the middle managers who make between $40,000 and $50,000 a year says Emily Coleman, president of Coleman & Associates, Inc. a high-tech market-research firm. Coleman & Associates conducted a study to see how bad the problem of employees playing games at work had become. They discovered that forty four percent of the U.S. population plays games on their home PCs. Twenty three percent of the adults who were interviewed said that they had played games at work (Stuller, 1997: 18). However, many mangers today are looking at the game playing as a good way of letting the employees relax after a hard day of work as long as there are policies stating when games can be played and where the games should be saved on the network. Sal Viltale, Senior Vice President of operations, noted that his organization doesn't prohibit game playing, primarily because he believes games can have a useful business purpose. "Games can help employees relax during time of great pressure." He also added, "they challenge our minds. Third, they stimulate creativity."

Vitale also added, "our policy is not to restrict games, but to limit their use in a way that does not adversely affect business operations or network performance" (Stuller, 1997: 22). Many of the problems that the Air Force experiences with personal E-Mail and personnel playing games while at work may be corrected if there was an Air Force Instruction on personal use of the Internet. "From the growth in our business, Internet abuse is clearly a growing corporate problem," says Julie Novak, a sales manager with Webster Network Strategies of Naples, Fla., which builds electronic filters that block access to unwanted sites. "Audits of unfiltered corporate Internet use typically show that sex-related and online sports are by far the most visited Web sites" (Stuller, 1997: 17).

The Internet is a useful tool that can be an effective addition to almost any organization within the Air Force. The problem is that the Air Force does not have set guidelines on how the Internet is supposed to be used for personal use. Many organizations within the Air Force have a policy letter that applies to their organization specifically, but not Air Force wide, as does an Air Force Instruction (AFI). This thesis is proposing that the Air Force looks to develop an AFI that resembles AFI 33-111 (Telephone Systems Management) in order to explain what is meant by personal use of the Internet.

Propositions

1. Existence of the Internet within the Air Force could be reducing productivity.

In today's Air Force environment with smaller numbers of personnel and the same number of responsibilities as before the downsizing began, managers need to be aware of what their employees are doing on the Internet during the duty day to track their productivity level. As Air Force members, many times we are asked to do different duties at once and we are expected to do these jobs well. As with any job, there will be times when the personnel will get stressed or tried of their jobs and will need an outlet to relieve stress. Before we had the Internet, people would talk on the phone to other members within the organization or read the sports section of the newspaper. Now that the Internet is on just about every desktop computer within the Air Force, people are using the Internet as an outlet to relieve stress. One of the problems is that the Internet could be causing the Air Force is the loss of productivity from the personnel misusing the Internet.

The Internet can open a new world to someone who works behind a desks all day writing reports and gathering information. The Internet has been a successful tool for the Air Force, but I believe that there needs to be a specific Internet policy on what personnel can and cannot do while working on the Internet. The current AFI 33-129 (Transmission of Information Via the Internet) specifically discusses official and authorized use of the Internet for Air Force personnel during the duty day, but I feel that the Air Force needs to add a section on personal use of the Internet.

Now that Air Force personnel have instant access to the World Wide Web, they are taking time away from their duty day to browse the Internet for the latest information that might not always be for official business. Many managers within the Air Force believe that their personnel understand what is meant by official and authorized use of the Internet, but the Air Force still has problems with Internet misuse. Managers need to meet with their employees and explain what they can and cannot do while working on the Internet. The main reason that I chose to do my thesis on the Internet was that I believe that there needs to be more research into whether or not Internet is affecting the Air Force's productivity level.

2. Personal Use of the Internet by Air Force personnel during the duty day may cause a negative output level.

Many of the official government publications such as the DODD 5500.7-R, Joint Ethics Regulation, and AFI 33-129, Transmission of Information Via the Internet, do not define personal use of the Internet. Both of the these government publications define official use and authorized use of government communication systems and equipment including government owned telephones, facsimile machines, electronic mail, Internet systems, and commercial systems when use is paid for by the Federal Government. Almost everyone within the Air Force has a good idea what is meant by official use of the telephone or of the fax machine, but I believe that there are still some people out there that do not know what is meant by official use of the Internet.

The problem that the Air Force is having with personal use of the Internet is that many of the Air Force members are going above and beyond what official use and authorized use of the Internet was intended to mean. For example, when people are reading the *USA Today* or the *Wall Street Journal* during duty hours, they say they're reading to keep up on current events. The problem is that many of these Air Force members are the same people who are spending hours at a time trying to find out how their favorite sport teams did over the weekend, checking out how their stocks did from the day before, or browsing the Internet for personal information about a new car. If there were an Air Force Instruction that covered exactly what personal use of the Internet meant and how a commander could regulate the use of the Internet for his or her personnel, I feel that the Air Force would have less of a problem of Internet misuse. One of the main reasons that I chose to investigate how the misuse of the Internet affected the productivity level of an Air Force organization was that I was interested in finding out how personal use of the Internet hinder the productivity level of the Air Force.

3. **Existence of an Internet policy similar to the telephone policy could help lower productivity loss within the Air Force.**

The problem within many of the Air Force's organizations is that they do not have Internet polices in place stating what the personnel can or cannot do while working on the Internet. In a survey conducted by Gordon & Glickson Survey Computing Magazine in May of 1996, the authors state that 62 percent of the companies that they interviewed had no written policies regarding the Internet use by their employees (Gaskin, 1997: 340-341). The problem with many of the organizations that do not have Internet polices is that these

organizations could be losing productivity because their personnel are browsing on the Internet, and most of them probably do not know how much productivity they're losing. Having an Internet policy explicitly stating what the Air Force member can and cannot do while on the Internet should be a main concern of every Air Force organization. The policy could hopefully help cut down on the misuse of the Internet within the organizations. With the Internet still being new to many organizations and employees using the features for the first time, there are going to be some instances of misuse within the organization. If an organization does not have a clear-cut Internet policy, the organization cannot hold their personnel accountable for any kind of Internet misuse that could happen.

When an Air Force manager is creating his or her Internet policy, the policy should resemble the telephone policy. Long before the Internet came into the workplace employees were misusing the telephone. The organizations believed that misuse of the telephone was one of the main productivity losses. Over the years, management learned that the telephone was a useful tool in the workplace. The telephone policies were put into place explaining to the employees what they could do and could not do on the telephone while at work. I believe that the policy for personal use of the Internet should closely resemble AFI 33-111, Telephone System Management, 1 May 1998. The Air Force should create an Air Force Instruction on the personal use of the Internet which would help many managers within the Air Force have more control over their personnel's use of the Internet during the duty day.

4. The existence of productivity measures within the Air Force could help lower Internet misuse.

The problem that the Air Force is experiencing today is that the Air Force has no current productivity measures that will demonstrate if the Internet is increasing or decreasing productivity within the organizations. Many of the top researchers in the field of Information Technology, are concerned over the fact that organizations are spending millions of dollars on Information Technology and most of the organizations that are spending the money have nothing to show for their efforts. The Air Force was slow at first about giving members of an organization access to the Internet, but today almost everyone within the Air Force has access to the Internet somewhere within their organization.

> Concern about lost productivity, as well as fears of introducing computer viruses and offensive material into the workplace, are causing many organizations to take a hard look at their Internet use. Several have gone so far as to shun the technology until all their doubts are cleared up. (Mehler, 1996: 1)

Without the proper Information Technology measures that will prove everyone that the technology is worth the money, I believe that many organizations are going to slow down on their purchasing of Information Technology. For example, organizations might not give every employee access to the Internet until there is some type of measurement that can show the organizations whether or not their investment in technology is producing a positive level of productivity. In today's Air Force there needs to be control over a process or a new technology such as the Internet. Until the proper Information Technology measurement is created that can show management that the Internet has increased the productivity level of the organization, the managers are going to have to observe their

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personnel carefully to ensure that no Internet misuse is occurring within their organizations.

Summary

The purpose of Chapter II was to review the current literature on the Internet and how the misuse of the Internet by Air Force personnel could affect an organization's productivity level. In 1972, the U.S. Department of Defense created the Transmission Control Protocol/Internet Protocol (TCP/IP) reference model for linking different types of computers and networks to enable people to share information from across the country. The Internet was based on the TCP/IP reference model. In today's Air Force, being able to share information quickly over the Internet is very important for the success of the Air Force. Misuse of the Internet slows down the organization's network that will affect how much information can be distributed over the network for official business. One of the ways that the Air Force could try to correct the problem of Internet misuse is through creating a productivity measure that could show how much productivity is being lost or gained through the use of the Internet. The Air Force can address the problem of Internet misuse by establishing new guidelines that specifically define official and authorized use of the Internet by Air Force personnel during the duty day. The policy should be specific and discuss the Air Force's views on the official use of the Internet during duty hours. Throughout this chapter, information was described on the importance of establishing policies on personal use of the Internet to help commanders cut down on the Internet misuse within the Air Force.

The problem that the Air Force needs to address is the issue of personal use of the Internet by Air Force personnel during the duty day. According to Air Force Instruction 33-129 (Transmission of Information Via The Internet), 1 January 1997,

> The Internet provides opportunities for quick and efficient disseminating of information to the public, distributing information throughout the Air Force, and accessing information from a variety of sources. Information may be sent between offices or individuals, or be displayed on the web. The Air Force goal for the Internet is to provide maximum availability at acceptable risk levels for Air Force members needing access for the execution of official business. (AFI 33-129, 1997: paragraph 2).

The AFI also states that Commanders and supervisors will ensure that Air Force personnel are only using government resources for official or authorized use. The Air Force needs to create an Air Force Instruction that defines personal use of the Internet for every member within the Air Force. Currently, most of the decisions dealing with the Internet are left up to the commanders to determine where, when and why their personnel are connected to the Internet.

The power to decide what an Air Force member can do on the Internet for personal reasons should be determined by the Air Force and not a local commander. If there was an AFI stating that an Air Force member could use the following Internet features for personal use during the duty day. The Air Force would probably experience a productivity boost in how much work the organization did in a month for example. In the next chapter, the methodology of how the survey instrument was designed, how the sample population was chosen and key terms will be defined.

III. Methodology

Overview

This chapter describes the methodology used to conduct the research to subsequently answer the research questions from Chapter I. Thus far, a thorough literature review that surrounds the issue at hand was illustrated for the reader. This chapter sufficiently describes the summary of the problem and the process of designing the survey instrument, including how the target sample population was identified and selected, statistical procedures used, the pilot test of the survey, and assumptions used in conducting this research.

Problem Summary

This is both a quantitative and qualitative study primarily because this particular problem is not approached or researched in the current literature. Consequently, the current research of the literature was used to develop a potentially useful survey that will help investigate the current issue of Internet misuse within the Air Force. The study will produce descriptive data that will be analyzed to investigate the opinions and attitudes of the survey participants on Internet misuse. Very little research has been directed towards how the misuse of the Internet by Air Force personnel affects the productivity level of an organization. If the misuse is occurring within the Air Force, to what degree are we losing productivity from our personnel misusing the Internet while at work? Today, more than ever, it is important for the Air Force to be able to control this type of productivity loss especially during budget cuts and draw downs. The problem that needs to be addressed is

how the misuse of the Internet is affecting the work level of the Air Force member. Another important issue with the personal use of the Internet is that there is a perceived loss of productivity within the Air Force. This thesis addresses the problem of Internet misuse by Air Force personnel and how the Internet affects the productivity of the members within their work environment. It also investigates how the use of the Internet by an Air Force member for personal use can affect the productivity level of an organization during the duty day.

The focus of this research is how the personal use of the Internet affects the productivity level of an organization. Several questions are asked throughout this chapter. How great is the problem of Internet misuse within the Air Force? Does the Air Force need a specific Air Force Instruction stating what personnel can and cannot do while on the Internet during duty hours? How can the supervisor prevent Internet misuse? By limiting the Air Force member's access to the Internet, will Internet misuse decrease? Is the Internet creating productivity and efficiency for the Air Force? How will the Internet be used in the future?

Research Variables Defined

This study examines the affects of Internet misuse by Air Force personnel and how the misuse affects the productivity of an organization. For the purposes of this research, the following terms are defined: *Internet, Internet misuse, Personal Use of the Internet, Productivity, Official Use of the Internet, Authorized Use of the Internet, and Non-Official use of the Internet.*

Internet

The Internet is a global network that enables systems to communicate with all other connected systems. Developed originally for military purposes, the Internet has now become the largest commercial network in history. No single entity controls, manages, or oversees the Internet, making many politicians in the countries around the world nervous (Gaskin, 1997: 436). The Internet is a global connection of computer networks and computers. Any computer that can communicate or share information or files with other computers on the common global network is considered on the Internet or, has the access to the Internet (Gaskin, 1997: 436).

Internet Misuse

Internet misuse may be defined as Air Force members who are using the Internet during the duty day for use other than official business or that, which is not work-related such as checking sports scores or the stock market.

Personal Use of the Internet

Personal use of the Internet maybe defined as using the government resources (i.e., computers, Internet Service Providers and E-Mail) for personal gain or benefit while at work.

Productivity Loss

Productivity Loss maybe defined as the loss of productivity experienced by an Air Force organization through their personnel misusing the Internet and not completing their assigned duties on time.

Official Use

According to the DODD 5500.7-R, Joint Ethics Regulation,

Official use includes emergency communications and communications that the DoD Component determines are necessary in the interest of the Federal Government. Official use may include, when approved by theater commanders in the interest of morale and welfare, communications by military members and other DoD employees who are deployed for extended periods away from home on official DoD business. (DODD 5500.7-R, 1993: paragraph 2)

Authorized Use

According to the DODD 5500.7-R, Joint Ethics Regulation,

Authorized purposes include brief communications made by DoD employees while they are traveling on Government business to notify family members of official transportation or schedule changes. They also include personal communications from the DoD employee's usual work place that are most reasonable made while the work place, such as checking with spouse or minor children; scheduling doctor and auto or home repair appointments; brief Internet searches; e-mailing directions to visiting relatives. (DODD 5500.7-R, 1993: paragraph 2).

Unofficial Use of the Internet

According to AETC Instruction 33-102 (Proper Use of the Internet) 28 June 1996,

Using the Internet for unofficial purposes is not authorized and may result in administrative or criminal adverse actions for civilian, military, or contractor personnel. The following types of activities are strictly prohibited and may result in administrative, nonjudicial, or judicial punishment for civilians, military, or contractor personnel; viewing, downloading, copying, sending, or processing information when not in the conduct of official government business.
(AETC Instruction 33-102, 1996: paragraph 2).

Lack of Internet Guidance Within the Air Force

Many organizations today still do not have Internet guidance on what the Air Force member can or cannot do while working on the Internet. According to the Joint Ethics Regulation (DoD 5500.7-R), the following are authorized for Internet use while at work:

(a) Use which does not adversely affect the performance of official duties by the DoD employee or the DoD employee's organization;

(b) Use which is of reasonable duration and frequency, and whenever possible must be made during the DoD employee's personal time such as after duty hours or lunch periods;

(c) Use which serves a legitimate public interest such as keeping DoD employees at their desks rather that requiring the use of commercial systems; educating the DoD employee on the use of the communications system; improving morale of DoD employees stationed for extended periods away from home; enhancing the professional skills of the DoD employee; job-searching in response to Federal Government downsizing;

(d) Use which would not put Federal Government communications systems to uses that would reflect adversely on DoD or the DoD Component (such as uses involving pornography; chain letters; unofficial advertising, soliciting or selling except on authorized bulletin boards established for such use; violations of statute or regulation; inappropriately handled classified information; and other uses that are incompatible with public service;

(e) Use which would not overburden the communication system (such as with broadcasts and group mailings) or create a significant additional cost to DoD (DODD 5500.7-R; 1993: paragraph 2-301).

Data Collection

The data gathering technique that was used for this research effort was a survey instrument. The reason that a survey was used to gather data for the research topic was that it was felt that more people could be reached through the use of a survey. The survey allows the researcher to direct how survey questions will be grouped and displayed to the

survey participant. Many times researchers will use a survey to sample a specific populations about a concern to learn about characteristics of a group or set of attitudes or beliefs of the individuals involved in the survey sample group (Sherman and Webb, 1988: 83).

> To survey is to question people and record their responses for analysis. The great strength of questioning as a primary data collecting technique is its versatility. Abstract information of all types can be gathered only by questioning others. We can seldom learn much about opinions and attitudes except by questioning. (Cooper and Emory, 1995: 269)

The survey instrument was developed to investigate the selected sample population's thoughts and beliefs as to the significance of Internet misuse within the Air Force. Air Force personnel and their beliefs of personal use of the Internet accomplished this survey as a snapshot of the current use of the Internet. "Strengths of surveys include accuracy, generalizability, and convenience" (Sherman and Webb, 1988: 85). Many times the only way to get the information that a researcher needs is through the use of the survey. Through the help of a sponsor the information is normally more meaningful to an individual or an organization than if one person tried do gather information. Individuals or organizations usually sponsor surveys for one of three reasons:

1. They want to influence or persuade some audience;

2. They want to create or modify a product or service they provide for a particular public;

3. They want to understand, or predict human behavior or conditions, because it's the focus of their academic or professional work (Alreck and Settle, 1995: 3).

Research Design

The survey instrument was made up of multiple choice questions, scaled responses (Likert Scale questions) and open-ended questions. Many times researchers will use a survey simply because it is the only way to get the information that is needed for the specific research topic (Alreck and Settle, 1995: 3). The value of a survey instrument depends upon the amount of resources devoted to the survey and the amount of time and expertise that goes into designing the survey instrument (Alreck and Settle, 1995: 5).

The design of the survey instrument was created to gather both forms of research, qualitative and quantitative data. Qualitative research is gathered in the form of words or other indications that do not lend themselves to quantitative analysis and whose analysis and interpretation depends on subjective judgments by experts (Alreck and Settle, 1995: 452). Qualitative research uses inductive reasoning to approach plausible explanations of the events. The qualitative research portion of this survey instrument was meant to evoke ideas and thoughts on Internet misuse within an Air Force organization from the sample population. The qualitative portion of the survey was dealing with issues such as defining personal use of the Internet and Internet Misuse, Air Force policy regarding personal use of the Internet, and asking supervisors if they feel there is a problem of Internet misuse among their subordinates.

Quantitative research is obtained through a form that can be represented by numbers, so that quantities and magnitudes can be measured, assessed, and interpreted with the use of mathematical or statistical manipulation (Alreck and Settle, 1995: 452). Quantitative research uses deductive reasoning and numerical analysis to construct

quantifiable explanations as to the connection between events. The quantitative data was collected throughout the entire survey using multiple choice questions and scaled response questions (Likert scale).

Section I of the survey was created to discover categorical information about the survey participant and whether or not the participant was a supervisor. Throughout Section II of the survey, the questions were investigating the respondent's normal use of the Internet while at work during the duty day. Section II also asked questions about the organization's Internet policies and how long have they been actively using the Internet at work. Section III of the survey questioned the survey participant's feelings about the Internet and how the Internet affected their productivity level while at work. Section III also asked the normal time they were connected to the Internet and how long they spent on the Internet. Section IV of the survey was created in order to investigate the survey participant's thoughts about Internet misuse and how the misuse affected their particular organization. The questions were also designed to find out if they believed that the Internet was making them more productive or less productive when at work. Section's V and VI were open ended questions that asked the survey participants to define personal use of the Internet, Internet misuse, and explain how the Air Force should control personal use of the Internet. In section's VII and VIII, the supervisors explained their subordinate's Internet use while at work.

Sections V, VI, and VIII are the qualitative section of the survey instrument. The questions are open ended and specifically asking the survey participant to express an opinion on a certain topic that is relevant to the research. I employed as a template,

Captain Pamela E. Quintero's survey for the design of the survey instrument for this thesis effort (Quintero, 1996). The survey was coordinated through the researcher's thesis advisor, the Air Force Institute of Technology Survey Coordinated, and approved for distribution by the HQ AFPC/DPSAS on 17 May 98. The survey was also assigned a control number; Air Force Personnel Center (AFPC) Survey Control Number, USAF SCN 98-38.

Characteristics of Qualitative Research

The main idea of qualitative research is not the confirmation of a predetermined concept, but finding new information that leads the researcher to new ideas. Qualitative research, many times will focus on the natural surroundings of the environment. Qualitative and quantitative research are different in that qualitative research is based on a number of experiences while quantitative research normally groups all experiences into groups that are similar (Sherman and Web, 1988: 5). Qualitative research uses data in the form of words and whose analysis and interpretation depends on the subjective judgment by experts. Quantitative research uses data in a form that can be represented by numbers, so that quantities and magnitudes can be measured, assessed, and interpreted with the use of mathematical or statistical manipulation (Alreck and Settle, 1995: 452).

There are six areas of qualitative research in the area of education. The six areas of qualitative research are Human Ethology, Ecological Psychology, Holistic Ethnography, Cognitive Anthropologists, and Symbolic Interactionism.

The first area of qualitative research is Human ethology. Human Ethology tries to understand the variety of behaviors that people naturally display within an environment. Researchers will normally gather the information on the individual through observation and quantitative analysis.

The second area of the qualitative research is Ecological Psychology. Ecological Psychology demonstrates how individuals and the environment interact in shaping someone's behavior. Ecological psychology relies mostly on observational data mixed with specimen records for analysis of individuals. The main focus of ecological psychology is to represent the environment's influence on the characteristics of the individual.

The third area of qualitative research is Holistic Ethnography. Holistic Ethnography tries to describe and analyze the human culture and the researcher uses observation as the main approach to collecting data. The researcher will try to acknowledge the individuals thoughts through the use of observation.

The fourth area of qualitative research is Cognitive Anthropologist. The Cognitive Anthropologist collects data by personal interviews, then the researcher will analyze the data qualitatively to demonstrate the understanding of the individuals. The Cognitive Anthropologist also assumes that the individuals involved within the research ideas are arranged into cognitive or semantic schemata-categories of understanding are linked together.

The fifth area of qualitative research is Ethnography of Communication. Ethnography of Communications theory draws conclusions from the linguistics of the participants within the research. The researcher collects data on the participant's verbal and nonverbal cues. The research relies on the individual's audio or videotape observation for the specific cues as mention before.

The sixth area of qualitative research is Symbolic Interactionism. Symbolic Interactionism is concerned with how participants interact within a social environment. The researcher hopes to understand how participants interact with other individuals (Sherman and Webb, 1988: 9-10).

From the six primary types of qualitative research, the Cognitive Anthropologist Theory is the closest in purpose and design to the current study. In section V and VIII of the survey there were qualitative questions that were developed for the survey participants to express their opinions on a wide range of questions. This thesis is looking to help identify the problem of Internet misuse within the Air Force.

Pilot Study (Survey)

Next, the graduate students from the Air Force Institute of Technology were utilized to provide the initial validation of the survey instrument through a pilot survey. The pilot survey is a brief preliminary survey often using a small yet convenient sample. It is conducted to test the survey instrument and data collection method before the project's details are finalized and the larger, formal survey is conducted (Alreck and Settle, 1995: 451). Ten graduate students completed the survey and critiqued the survey questions. The graduate students evaluated the survey instrument to ensure the questions were clear and

unambiguous, and to make certain the data collected would be consistent with research goals for the thesis. Input from the pilot survey was incorporated into the survey instrument to provide a more accurate survey collection instrument.

Research Population

The target population was derived from the fact that this thesis was focused on Internet misuse and how that misuse affects the productivity level of an Air Force organization. In order to collect valid data, a representative sample was needed of civilian and military (Office and Enlisted) personnel who had a working knowledge of the Internet. Another goal was to be able to compare the supervisor and subordinate's beliefs about Internet misuse within an Air Force organization. One of the Air Force organizations that the research team used was the 88th Mission Support Squadron, Wright-Patterson Air Force Base, Dayton Ohio, which serves as the base level support for Wright-Patterson AFB. The squadron consists of 125 civilian and 88 military personnel. The second organization that the research team used was the Air Force Research Lab, Sustainment Logistics Branch for the Human Effectiveness Directorate (AFRL/HESS), which is made up of 42 military personnel that were surveyed for the thesis research. The reason that AFRL/HESS was used in this sampling population was that they were a research lab and we hoped to be able to have a better representative sample by using these two organizations. While the researcher was gathering information from the sample populations through the use of a survey instrument, many limitations can occur throughout the entire research process.

Limitations of the Research

One of the concerns of a researcher is bias of the survey instrument. One of the limitations of the research process is that many times the researcher will introduce bias into their survey instrument that will damage the degree of reliability of the gathered data. The bias can come from many different places within the survey design process. Some of the main contributing causes are the following: the sample population doesn't understand the concepts that were presented within the survey instrument, the survey participant's lack of knowledge on the presented topic, the survey participants do not tell the truth about the organization because they fear retaliation from management. Finally, the way the researcher words the survey items can influence the survey participant's judgment on specific questions.

There are steps that researchers can take to limit the bias that can affect the validity of survey instrument. First, the researcher can make sure that every section within the survey is clearly explained and that the main concepts such as personal use and official use of the Internet are explained in detail. Second, the researcher can make a statement at the beginning of the survey stating that the survey participants need a working knowledge of the Internet in order to complete this survey. Third, the researcher needs to explain to the participants that the survey is completely anonymous and that no one within their organizations will ever see the completed surveys. It is also important to state in the beginning of the survey that the organizations that participated in the research of the survey will receive a copy of the results. Finally, the researchers need to be careful how they word specific survey items throughout the survey. It is important to validate the survey

instrument through the use of a pilot survey to ensure that the survey items are consistent with the researcher's goals.

Methods of Analysis

The primary statistical analysis that will be used for this thesis will be frequency and percentage tables, central tendency and averages (mean, median, and the mode). Throughout the survey there were a variety of quantitative questions for the survey participants to either select a response to or answer an open-ended question. The responses are in the form of a scale from one to five. The survey participants had a choice of responses which ranged from: 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. The survey also had qualitative questions where the survey participants could describe how they felt about Internet misuse and personal use of the Internet during duty hours. The results of each individual question will be analyzed and presented graphically in Chapter IV. The total number of surveys collected and percentages of surveys sent out will be totaled and the percentages depicted in charts in Chapter IV. AFRL/HESS and 88MSS responses will be used in order to compare and analyze the specific differences between the squadrons on their beliefs of Internet misuse within the Air Force. The survey will also compare and contrast the two different organizations that were involved with the data gathering process for each survey item.

The following analysis was conducted on each item throughout the survey. The mean, median, and mode (Central Tendency and Averages) were used to help compare the specific measures that the researcher was interested in measuring. The mean is normally

the middle point or the most common average. The median value is another form of average or indication of the most typical case. The mode is simply the category or value with the greatest frequency of cases (Alreck and Settle, 1995: 273-275).

The data that was collected from the survey instrument that was sent to the two squadrons will be broken up into categorical data. The data that was collected from the surveys can be described as either ordinal or interval data. These types of data can be displayed as frequency or percentage tables if there are a limited number of different scales. Frequency tables will help demonstrate how the data is distributed over different variables. The problem with frequency tables is that they are limited in the number of values or categories that can be demonstrated on a chart. Percentage distribution tables are very useful in displaying the information easier to understand than the frequency tables. What makes the percentage distributions tables better than the frequency tables is that the percentage tables allow the researcher to compare more than one item or variable at a time (Alreck and Settle, 1995: 270).

The last part of the analysis that was conducted on the survey was the qualitative analysis of section V and section VII. These sections were broken up into specific questions asking the survey participants their thoughts and feeling about a topic. The responses that were collected from the surveys were divided up into sections to allow for analysis of a specific question. The qualitative section will be broken down into personal use of the Internet, Internet Misuse, what types of things supervisors can do to prevent Internet misuse, what the Air Force policy should be regarding the Internet and whether if

people believe the Internet makes them more productive. (The Effects of Internet Misuse on Productivity is located in Appendix A).

Summary

The focus of this chapter was to provide an in-depth look into the design process of how the survey instrument was created and how the sample population was determined. This chapter also described the differences between quantitative and qualitative research and the different methods used to analyze the research data. The researcher defined the key terms (research variables) that will be used throughout the thesis. The researcher also described the statistical methods that will be used to analyze the data throughout chapter IV. In the next chapter, the results of the survey participant's from the 88 Mission Support Squadron and AFRL/HESS completed surveys will be presented in detail.

IV. Results and Analysis

Overview

This chapter displays the results of 105 completed surveys that were used to compile the following results. The Effects of Internet Misuse on Productivity Survey was distributed to the 88 Mission Support Squadron and the Air Force Research Lab, Sustainment Logistics Branch for the Human Effectiveness Directorate (AFRL/HESS) both of Wright-Patterson AFB, Ohio. The Effects of Internet Misuse on Productivity Survey was distributed by official base mail to 260 Air Force officers, enlisted and civilian members; 81 of the 215 surveys that were originally sent out were returned from the 88 Mission Support Squadron consisting of officers, enlisted and civilian for a return rate of 38 percent and 24 of the 45 surveys that were originally sent out were returned from AFRL/HESS consisting of officers for a return rate of 53 percent approximately. The overall return rate for the survey was approximately 40 percent.

This chapter will display the results from the survey. Effects of Internet Misuse on Productivity are divided up into eight sections throughout the chapter. The eight sections will be displayed throughout the chapter in the same order as the survey was presented to the participants.

Presentation of Data

Section I: The Effects of Internet Misuse on Productivity Survey

Section one of the survey instrument was designed to gather information about the survey participant's organization, rank or pay grade, years of computer experience, and current supervision experience. The results for Section 1 are shown below.

Section I, Number of Respondents by Organization
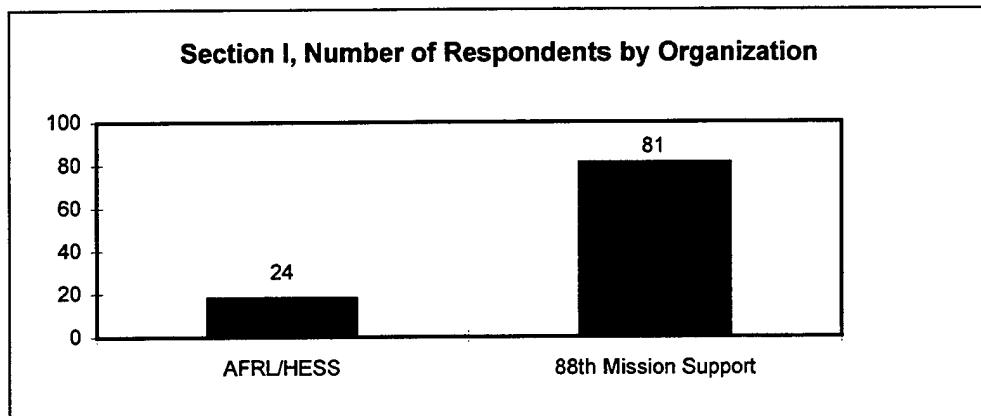
Organization	Surveys Received	Percentage
AFRL/HESS	24	22.85%
88th Mission Support	81	77.90%
Total	105	100.00%

Figure 1: Number of Survey Participants by Organization

Figure 1 demonstrates the participation level by the two organizations that were involved within the research process of responding to the Effect of Internet Misuse on Productivity survey (The Effects of Internet Misuse on Productivity survey is shown in Appendix A). The Air Force Research Lab, Sustainment Logistics Branch for the Human Effectiveness Directorate (AFRL/HESS) participants consisted of 23 percent of the survey

responses, and the 88 Mission Support Squadron made up the remaining 77 percent of the

survey respondents.
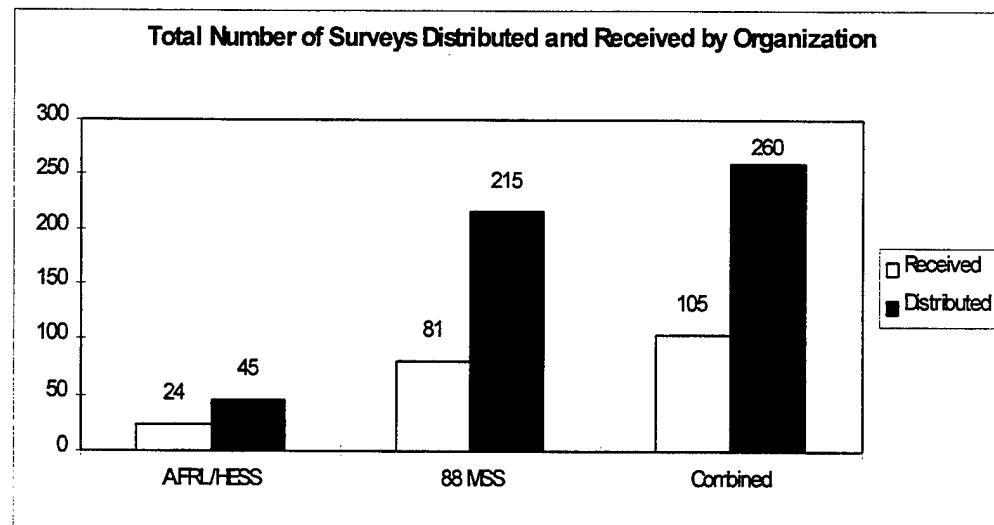
Organization	Surveys Received	Surveys Sent	Percentage
AFRL/HESS	24	45	40.00%
88th Mission Support	81	215	37.70%
Total	105	260	40.38%

Figure 2: Total Number of Surveys Received and Distributed by Organization

Figure 2 displays that of the 45 surveys that were distributed to AFRL/HESS, of the

45 survey that were sent out, 24 of them were completed and returned by the survey

participates for a return rate of 40 percent. Figure 2 also shows that of the 215 surveys that

were distributed to the 88 Mission Support Squadron, of the 215 surveys that were sent

out, 81 of the surveys were completed and returned by the survey participates for a return

rate of 38 percent. Finally, figure 2 also shows that for an overall return rate for

AFRL/HESS and the 88 Mission Support Squadron, there were 260 surveys distributed to

both squadrons and there were 105 surveys completed and returned for a return rate of 40 percent.
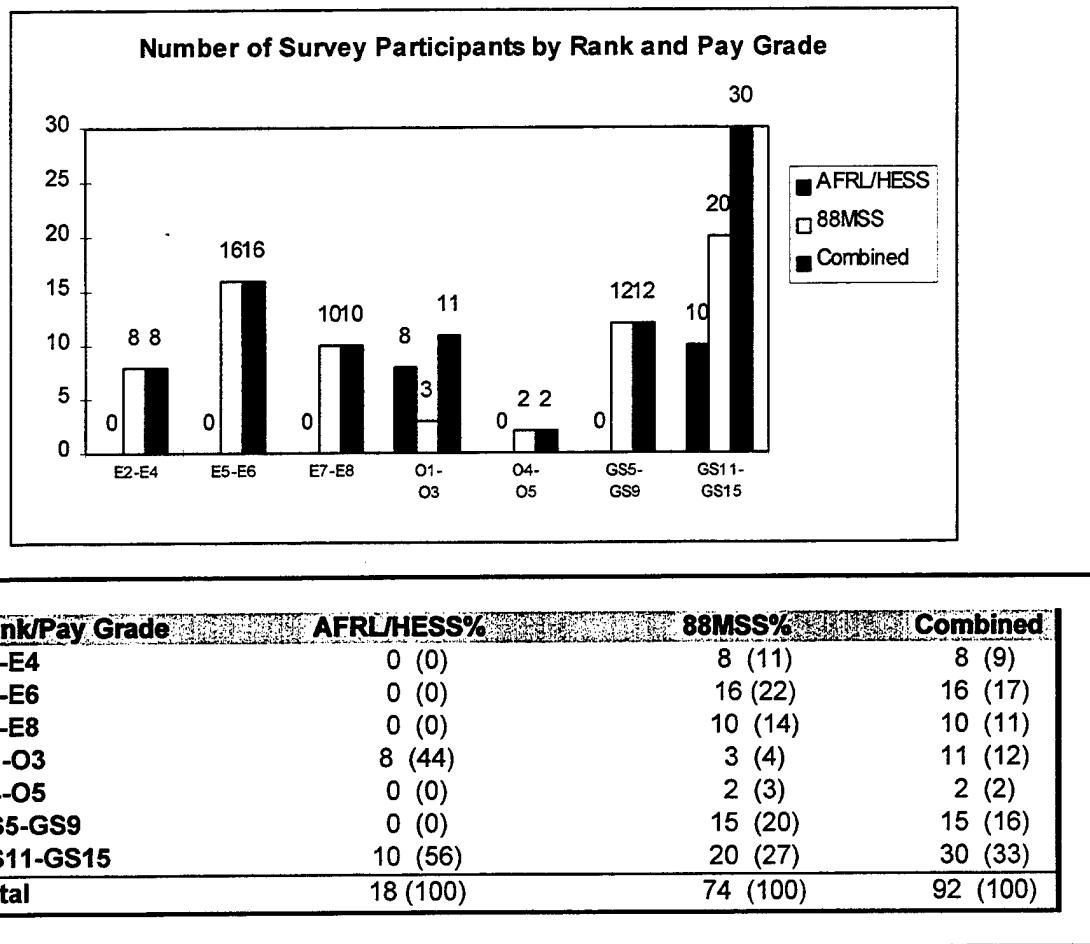
Figure 3: Number of Survey Participants by Rank and Pay Grade

Rank/Pay Grade	AFRL/HESS%	88MSS%	Combined
E2-E4	0 (0)	8 (11)	8 (9)
E5-E6	0 (0)	16 (22)	16 (17)
E7-E8	0 (0)	10 (14)	10 (11)
O1-O3	8 (44)	3 (4)	11 (12)
O4-O5	0 (0)	2 (3)	2 (2)
GS5-GS9	0 (0)	15 (20)	15 (16)
GS11-GS15	10 (56)	20 (27)	30 (33)
Total	18 (100)	74 (100)	92 (100)

Figure 3 shows of the 92 survey participants, who responded to the survey, 18 of the overall total were from AFRL/HESS and the remaining 74 members were from the 88 Mission Support Squadron. Figure 3 also show of the 18 members who responded from AFRL/HESS, 8 (44 percent) were in the rank of O-1 through O-3, and the remaining group consisted of civilians, 10 (55 percent) were in the grade of GS-11 through GS-15.

Figure 3 demonstrates as well, that the 88 Mission Support Squadron consisted of the majority of the sample population. Figure 3 shows that of the 74 Air Force personnel who responded to the survey, 8 (11 percent) were in the rank of E-2 through E-4, 16 (22 percent) were in the rank of E-5 through E-6, 10 (14 percent) were in the rank of E-7 through E-8, 3 (4 percent) were in the rank of O-1 through O-3, 2 (percent) were in the rank of O-4 through O-5. The two remaining groups consisted of civilian, 15 (20 percent) were in the grade of GS-5 through GS-9, and 20 (27 percent) were in the grade of GS-11 through GS-15.

Figure 3 also displays the overall total for both groups who were surveyed, 8 (9 percent) were in the rank of E-2 through E-4, 16 (17 percent) were in the rank of E-5 through E-6, 10 (11 percent) were in the rank of E-7 through E-8, 11 (12 percent) were in the rank of O-1 through O-3, 2 (2 percent) were in the rank of O-4 through O-5. The two remaining groups consisted of civilians, 15 (16 percent) were in the pay grade of GS-5 through GS-9, and 30 (33 percent) were in the pay grade of GS-11 through GS-15.

Years of Computer Experience

Organization	Computer Experience (Years)	Standard Deviation
AFRL/HESS	10	5.62
88MSS	12	5.04
Combined	10	5.52
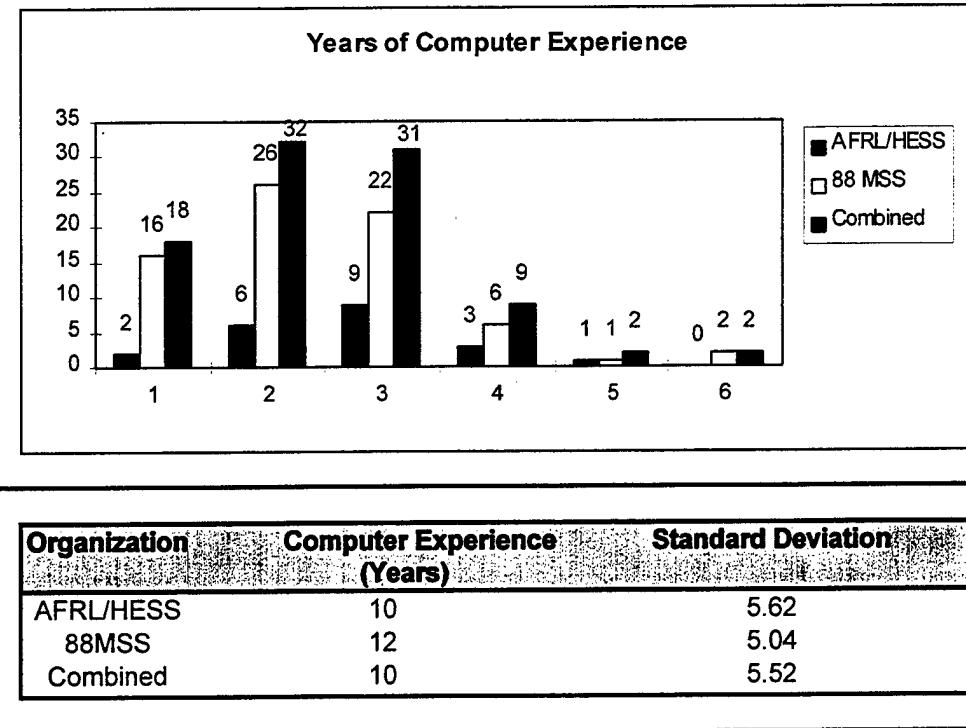
Figure 4: Computer Experience

Figure 4 shows that the members of AFRL/HESS who participated in the survey averaged 10 years of computer experience (with a standard deviation of almost 6 years), and the members from the 88 Mission Support Squadron averaged 12 years of computer experience (with a standard deviation of 5 years).

Figure 4 also demonstrates an overall total for both squadrons surveyed an average of 10 years of computer experience (with a standard deviation of 5.52).

Combined Supervisor and Subordinate chart (Section I)

Organization	Supervisor	Subordinate	Percent
AFRL/HESS	2	18	11%
88MSS	20	81	27%
Combined	22	99	22%
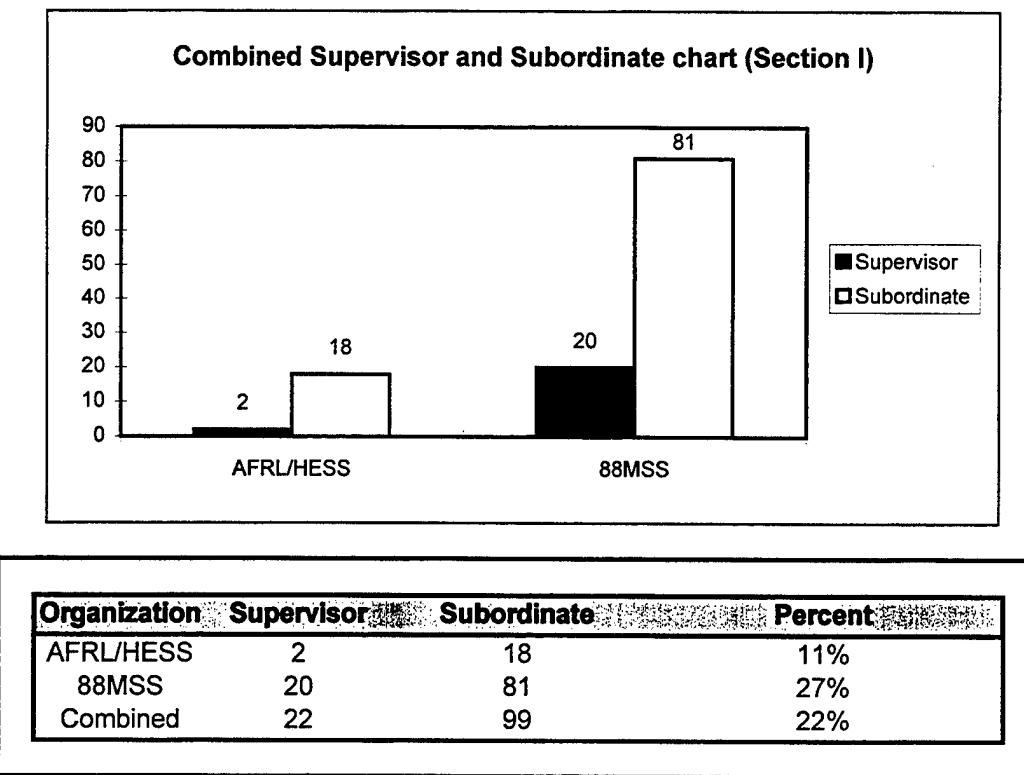
Figure 5: Combined Supervisor and Subordinate Chart

Figure 5 displays that AFRL/HESS has 2 supervisors (11 percent) and 18

subordinates whom participated in the survey research. The 88 Mission Support Squadron

consists of 20 supervisors (27 percent) and 81 subordinates who participated in the survey

research. Figure 5 also shows the overall total for both squadrons, which consisted of 22

supervisors (22 percent) and 99 subordinates.

Section II: The Effects of Internet Misuse on Productivity Survey

Section II was designed to get an understanding of the survey participant's background working with computers both at work and at home. The survey participant's results are displayed below.

Table 1: Responses to Computer Familiarity Questions (Section II)

Section II (Computer Familiarity)	AFRL/HESS				88MSS				Combined			
	Yes	%	No	%	Yes	%	No	%	Yes	%	No	%
1. Do you routinely use a computer in the course of your daily work?	18	100	0	0	75	99	1	1	93	99	1	1
2. Do you have access to a computer at work?	18	100	0	0	76	100	0	0	94	100	0	0
3. Do you have a computer at home?	15	83	3	17	61	80	15	20	76	81	18	19
4. Do you have Internet access at work?	18	100	0	0	76	100	0	0	94	100	0	0
5. Do you use the Internet at home?	11	61	7	39	41	54	35	46	52	55	42	45
6. Are you able to connect from home to work?	7	39	11	61	4	5	70	95	11	12	81	88
7. How do you primarily access the Internet when at work?												
a. From your desktop?	18	100	0	0	74	99	1	1	92	99	1	1
b. Shared computer resources between individuals?	0	0	18	100	2	3	73	97	2	2	91	99

Table 1 displays that of all the survey members who participated in the survey, 99 percent of the survey participants routinely used a computer while at work. Table 1 also shows that of the 100 survey members who participated in the survey, 100 percent of the survey participants had computer access while at work, 76 (81 percent) also had computer access while at home, 94 (100 percent) of the survey participants also had Internet access at work, 52 (55 percent) also had Internet access while at home, 11 (12 percent) of the survey members who participated in the survey reported that they could connect from home to work. Finally, table 1 shows that 92 (99 percent) of the survey members could access the

Internet from their desktop computer, and 2 (2 percent) of the survey members within both squadrons had to share computer resources with another member within the squadron.
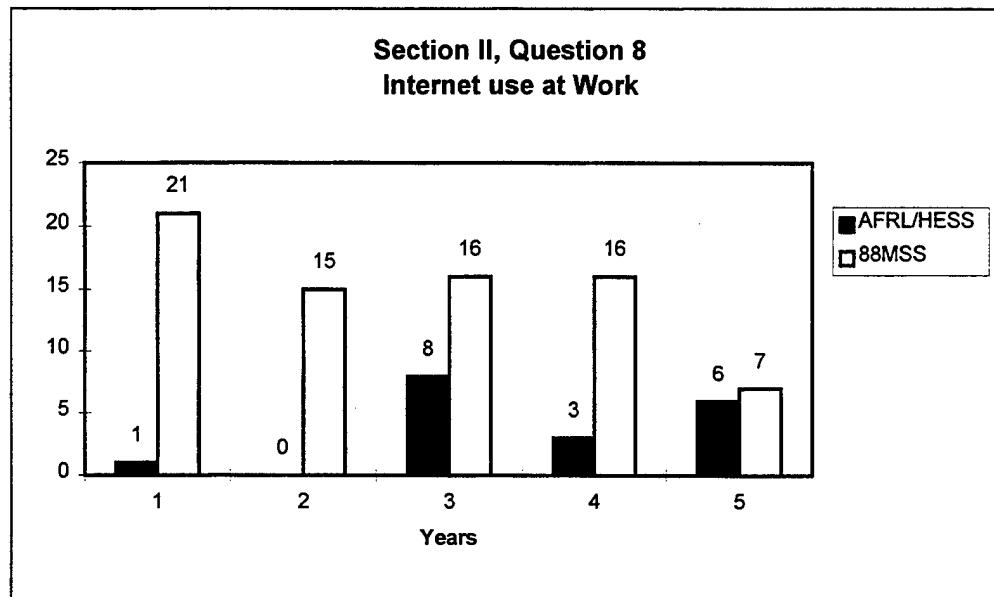
Figure 6: Internet Use at Work
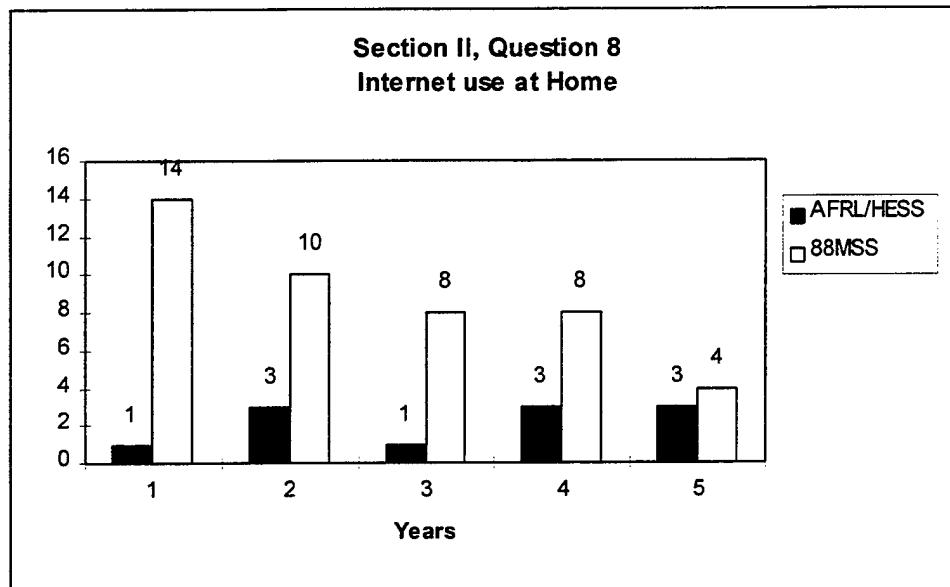
Figure 7: Internet Use at Home

Table 2: Internet Use at Work and Home: How long have you been actively using the Internet?

Experience	AFRL (W) %	AFRL (H) %	88MSS (W) %	88MSS (H) %	AFRL Combined %	88MSS Combined %
1	1 (6)	1 (9)	21 (28)	14 (32)	50(w) 50(h)	60 (w) 40 (h)
2	0 (0)	3 (27)	15 (20)	10 (23)	0 (w) 100 (h)	60 (w) 40 (h)
3	8 (44)	1 (9)	16 (21)	8 (18)	89 (w) 11 (h)	66 (w) 34 (h)
4	3 (17)	3 (27)	16 (21)	8 (18)	50 (w) 50 (h)	66 (w) 34 (h)
5	6 (33)	3 (27)	7 (9)	4 (9)	67 (w) 33 (h)	64 (w) 36 (h)
Total	18 (100)	11 (100)	75 (100)	44 (100)	62 (w) 38 (h)	63 (w) 37 (h)

Figures 6 and 7 (Table 2) show that each squadron actively used the Internet both from home and at work. Figure 6 shows that AFRL/HESS had a wide variety of years of experience using the Internet at work, 1 (6 percent) with less than 1 full year of experience using the Internet, 0 (0 percent) with more than one year, but under two years of experience using the Internet, 8 (44 percent) with more than two years, but under three years of

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experience using the Internet, 3 (17 percent) with more than three years, but under fours years of experience using the Internet, and 6 (33 percent) with over fours years using the Internet while at work.

Figure 6 (Table 2) also shows that AFRL/HESS had less survey participants who can connect to the Internet from home, 1 (9 percent) with less than one full year of experience using the Internet, 3 (27 percent) with more than one year, but under two years experience using the Internet, 1 (9 percent) with more than two years, but under three years experience using the Internet, 3 (27 percent) with more than three years, but under fours years experience using the Internet, 3 (27 percent) with more than 4 years experience using the Internet while at home.

Figure 7 (Table 2) shows that 88 Mission Support Squadron had a vast majority of their members who use the Internet while at work, 21 (28 percent) with less than one year using the Internet, 15 (20 percent) with more than one year, but under two years experience using the Internet, 16 (21 percent) with more than two years, but under three years experience using the Internet, 16 (21 percent) with more than three years, but under four years experience using the Internet, and 7 (9 percent) with over fours years using the Internet while at work.

Figure 7 (Table 2) also shows that there were more and more people who are connecting to the Internet from home, 14 (32 percent) with less than one full year experience using the Internet, 10 (33 percent) with more than one year, but under two years experience using the Internet, 8 (18 percent) with more than two years, but under three

years experience using the Internet, and 4 (9 percent) with more than four years experience

connecting to the Internet from home.

Table 3: Why do you use the Internet at work.

Section II Question 9 (Work)	AFRL/HESS				88MSS			
	Yes	%	No	%	Yes	%	No	%
Entertainment/Fun	0	0	18	100	0	0	71	100
Shopping	3	17	15	83	3	4	68	96
Research/Information Gathering	18	100	0	0	67	94	4	6
News/Current Events	13	72	5	28	33	46	38	54

Section II Question 9 (Personal Use)	AFRL/HESS				88MSS			
	Yes	%	No	%	Yes	%	No	%
Entertainment/Fun	3	38	5	62	22	67	11	33
Shopping	2	25	6	75	10	31	22	69
Research/Information Gathering	4	50	4	50	26	81	6	19
News/Current Events	5	63	3	37	16	50	16	50

Table 3 shows that of all the survey participants from AFRL/HESS who completed

and returned the survey, 0 (0 percent) used the Internet for entertainment or fun while at

work, 3 (17 percent) used the Internet for shopping while at work, 18 (100 percent) of the

survey participants used the Internet for research and Information gathering while at work,

and 13 (72 percent) used the Internet for reading the news and current events.

Table 3 also shows that of all the survey participants from the 88 Mission Support

Squadron who completed and returned the survey, 0 (0 percent) of the members who

participated with the survey used the Internet for entertainment and fun while at work, 3 (4

percent) of the members used the Internet for shopping while at work, 67 (94 percent) of

the survey participants used the Internet for researching and gathering information while at

work. and 33 (46 percent) of the participants used the Internet to read the news and to keep up with current events while at work.

Table 3 shows the personal use of the Internet by the members of AFRL/HESS. Three (38 percent) used the Internet for entertainment and fun while at work, 2 (25 percent) of the members used the Internet for shopping while at work, 4 (50 percent) of the survey participants used the Internet for information gathering while at work, and 5 (63 percent) of the members used the Internet for reading the news and keeping up with current events while at work.

Table 3 also shows the personal use of the Internet by 88 Mission Support Squadron members. Twenty two (67 percent) of the members used the Internet while at work for entertainment and fun, 10 (31 percent) of the survey participants used the Internet for shopping during duty hours while at work, 26 (81 percent) of the members used the Internet for researching information during duty hours at work, and 16 (50 percent) of the members used the Internet to read the news and keep up on current events during duty hours while at work.

Section II, Question 10
How do you perceive your organization's Internet use policy.
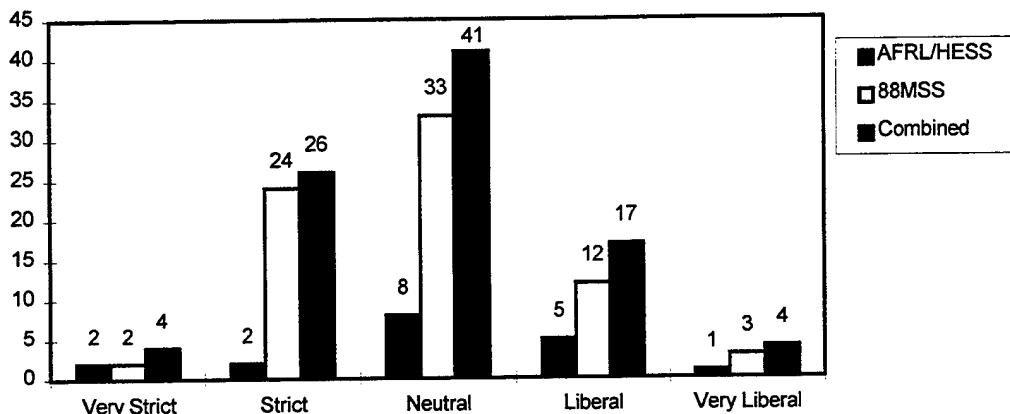
	AFRL/HESS	%	88MSS	%	Combined	%
Very Strict	2	11%	2	3%	4	4%
Strict	2	11%	24	32%	26	28%
Neutral	8	44%	33	45%	41	45%
Liberal	5	28%	12	16%	17	19%
Very Liberal	1	6%	3	4%	4	4%
Total	18	100%	74	100%	92	100%

	AFRL/HESS	88MSS	Combined
Mean	3.05	2.65	2.85
Median	3	3	3
Mode	3	3	3

Figure 8: How do you perceive your organization's Internet policy?

Figure 8 shows that of the 92 survey participants who completed the survey, 4 (4

percent) believed that the Internet policy was very strict, 10 (31 percent) believed that the

Internet policy was strict, 41 (45 percent) believed that the Internet policy was neutral, 17

(19 percent) believed that the Internet policy was liberal, and 4 (4 percent) believed that the Internet policy was very liberal.

Figure 8 also shows that of the 18 AFRL/HESS members who completed the survey, 4 (22 percent) believed that either the Internet policy was very strict or strict, 6 (32 percent) believed that either the Internet policy was liberal or very liberal, and 8 (44 percent) were neutral.

Figure 8 shows that of the 74 members from the 88 Mission Support Squadron, 24 (35 percent) believed that the Internet policy was either very strict or strict, 15 (20 percent) believed that the Internet policy was either liberal or very liberal, and 33 (45 percent) were neutral.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 2.85. Considering that the combined median and mode score was 3, this indicates that the survey participants were undecided on whether the Internet policy was strict or liberal.

My organization's Internet policy is clear in explaining what types of sites are allowed. (Section II, Question 11)

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	2	11%	2	3%	4	4%
Disagree	2	11%	6	8%	8	9%
Neutral	6	33%	19	26%	25	27%
Agree	6	33%	34	46%	40	43%
Strongly Agree	2	11%	13	17%	15	17%
Total	18	100%	74	100%	92	100%

	AFRL/HESS	88MSS	Combined
Mean	3.4	3.22	3.31
Median	4	3	4
Mode	4	3	4
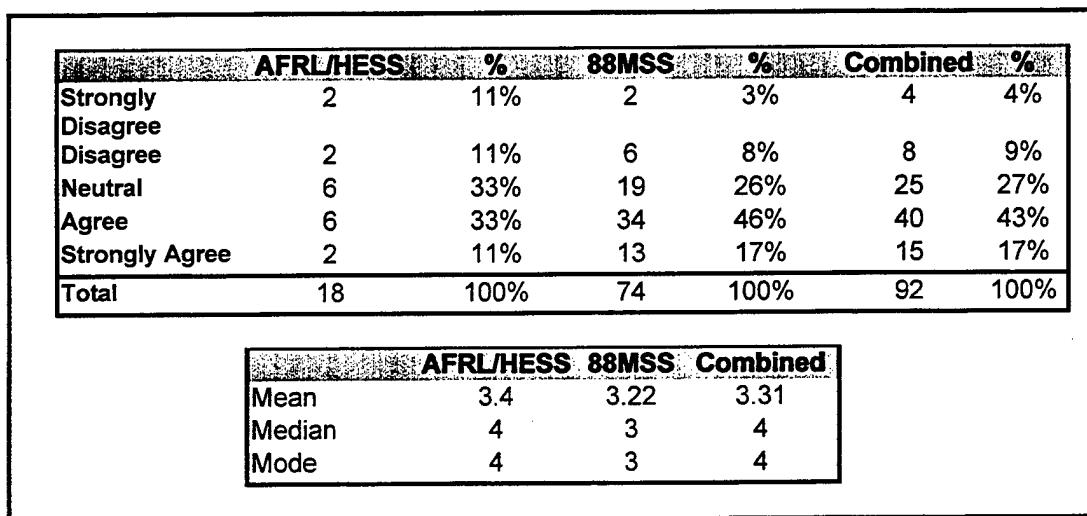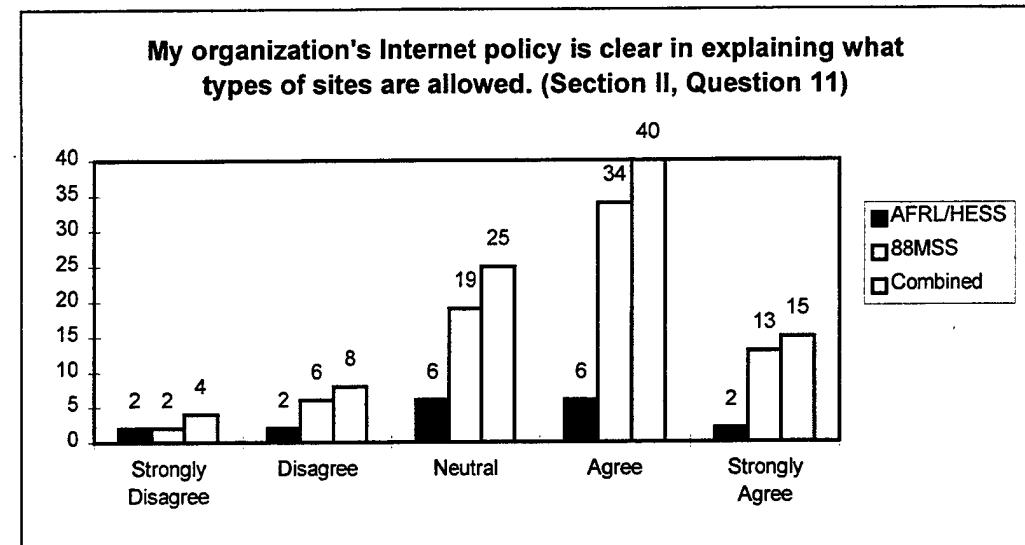
Figure 9: My organization's Internet policy is clear in explaining what types of sites are allowed.

Figure 9 shows that of the 92 survey participants from AFRL/HESS and the 88 Mission Support Squadron, 4 (4 percent) strongly disagreed that their organization's Internet policy was clear on which sites they could visit, 8 (9 percent) disagreed that their organization's Internet policy was clear on which sites they could visit, 25 (27 percent) were undecided (neutral) on if their Internet policy was clear on which sites they could visit, 40 (43 percent) agreed that their organization's Internet policy was clear on which

61

sites they could visit, and 15 (17 percent) strongly agreed that their organization's Internet policy was clear on which sites they could visit.

Figure 9 also shows that of the 18 survey participants from AFRL/HESS, 4 (22 percent) strongly disagreed or disagreed that their organization's Internet policy was clear on which sites they could visit, 6 (33 percent) were undecided (neutral) on if their Internet policy was clear on which sites they could visit, and 8 (44 percent) agreed or strongly agreed that their organization's Internet policy was clear on which sites they could visit.

Figure 9 shows that of the 74 survey participants from the 88 Mission Support Squadron, 8 (11 percent) strongly disagreed or disagreed that their organization's Internet policy was clear on which sites they could visit, 19 (26 percent) were undecided (neutral) on if their Internet policy was clear on which sites they could visit, and 47 (63 percent) agreed or strongly agreed that their organization's Internet policy was clear on which sites they could visit.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 3.31. Considering that the combined median and mode score was 4, this indicates that the survey participants agreed that the unit's Internet policy was clear on which sites they could visit.

Section III: The Effects of Internet Misuse on Productivity Survey

Section III was designed to investigate the attitudes of the subordinates using the Internet while at work and home. The survey participant's results are displayed below.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	0	0%	6	8%	6	6%
Disagree	1	6%	7	9%	8	8%
Neutral	2	11%	7	9%	9	9%
Agree	9	50%	34	42%	43	44%
Strongly Agree	6	33%	26	32%	32	33%
Total	18	100%	80	100%	98	100%

	AFRL/HESS	88MSS	Combined
Mean	3.79	4.11	3.95
Median	4	4	4
Mode	4	4	4
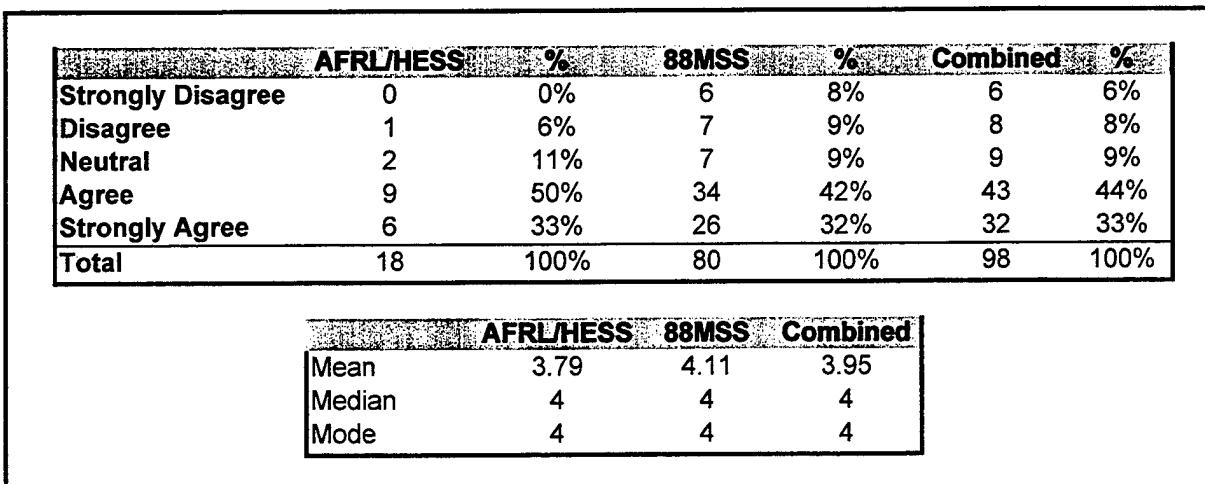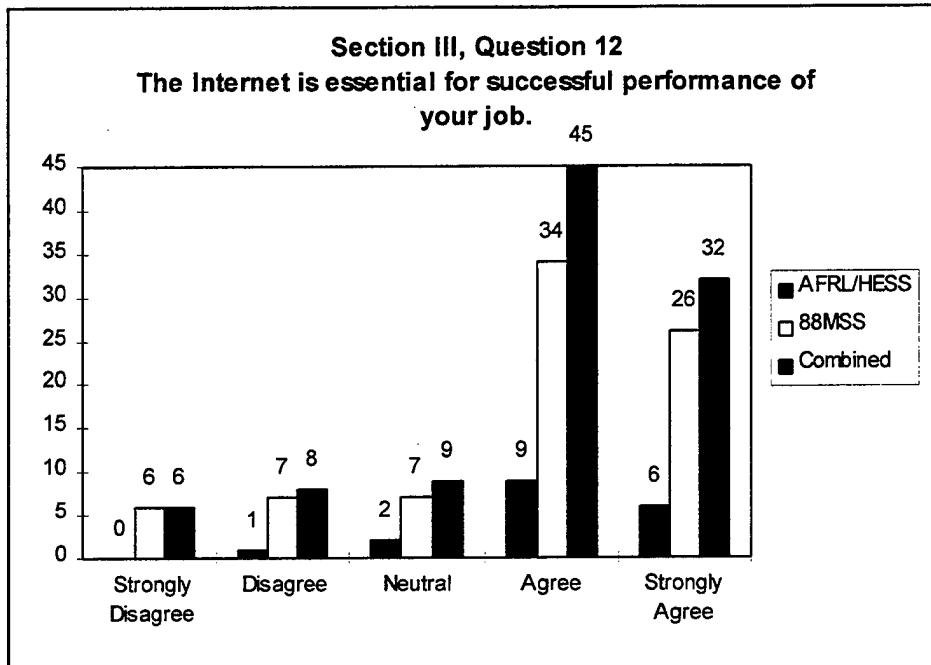
Figure 10: The Internet is essential for successful performance of your job.

Figure 10 shows that of the 98 survey participants from AFRL/HESS and the 88 Mission Support Squadron, 6 (6 percent) strongly disagreed that the Internet was essential for successful performance of their job, 8 (8 percent) disagreed that the Internet was essential for the successful performance of their job, 9 (9 percent) were undecided (neutral) on whether the Internet was essential for increasing their job performance, 43 (44 percent) agreed that the Internet was essential in successful performance of their job, 32 (33 percent) strongly agreed that the Internet was essential in the successful performance of their job.

Figure 10 also shows that of the 18 survey participants from AFRL/HESS, 1 (6 percent) strongly disagreed or disagreed that the Internet was essential in successful performance of their job, 2 (11 percent) were undecided (neutral) on whether the Internet was essential for increasing their job performance, 15 (83 percent) agreed or strongly agreed that the Internet was essential in successful performance of their job.

Figure 10 shows that of the 80 survey participants from the 88 Mission Support Squadron, 13 (17 percent) strongly disagreed or disagreed that the Internet was essential in their performance of their job, 7 (9 percent) were undecided (neutral) on whether or not the Internet was essential for increasing their job performance, 60 (74 percent) agreed or strongly agreed that the Internet was essential increasing their job performance.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 3.95. Considering the combined median and mode score was 4, this indicates that the survey participants agree that the Internet was essential increasing their job performance while at work.

Section III, Question 13
Using the Internet at work has made you more productive.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	0	0%	3	4%	3	3%
Disagree	0	0%	9	11%	9	9%
Neutral	0	0%	10	12%	10	10%
Agree	12	67%	36	44%	48	48%
Strongly Agree	6	33%	24	29%	30	30%
Total	18	100%	82	100%	100	100%

	AFRL/HESS	88MSS	Combined
Mean	3.88	4.33	4.11
Median	4	4	4
Mode	4	4	4
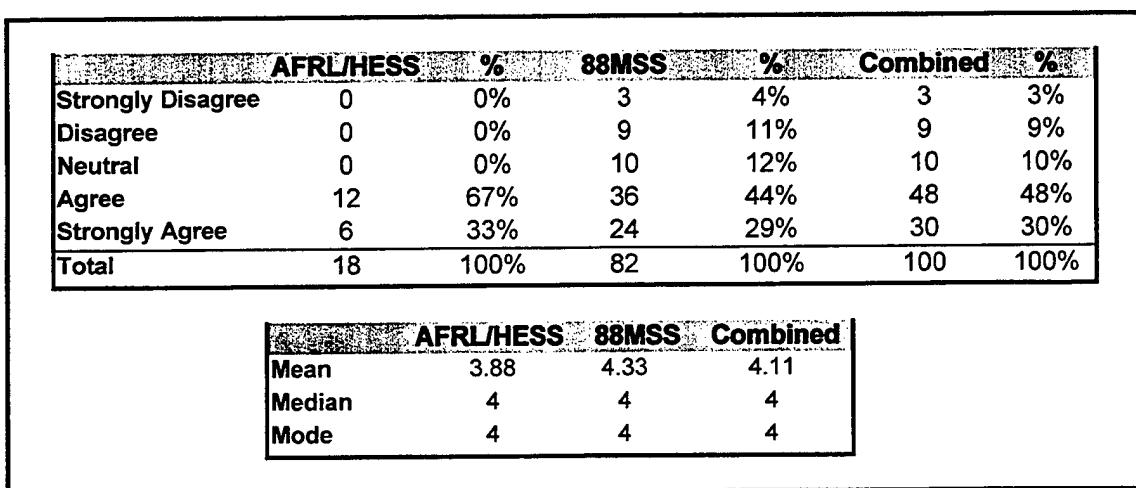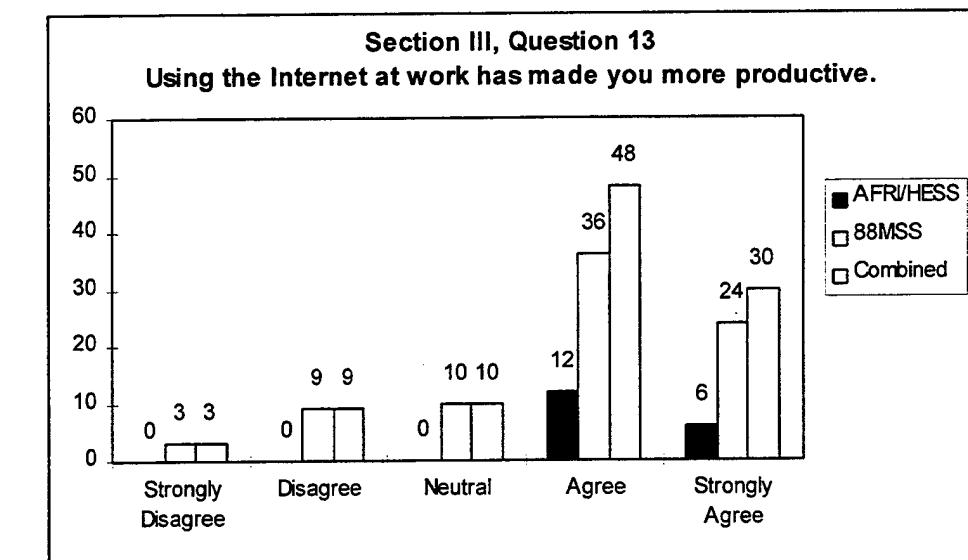
Figure 11: Using the Internet at work has made you more productive.

Figure 11 shows that of the 98 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 3 (3 percent) strongly disagreed that the Internet had made

them more productive while at work, 9 (9 percent) disagreed that the Internet had made

them more productive while at work, 10 (10 percent) were undecided (neutral) on whether

the Internet was responsible for making them more productive while at work, 48 (48

65

percent) agreed that the Internet had made them more productive, 30 (30 percent) strongly agreed that the Internet had made them more productive while at work.

Figure 11 also shows that of the 18 survey participants from AFRL/HESS, 0 (0 percent) strongly disagreed or disagreed that the Internet had made them more productive while at work, 0 (0 percent) were undecided (neutral) on whether the Internet was responsible for making them more productive while at work, 18 (100 percent) agreed or strongly agreed that the Internet had made them more productive while at work.

Figure 11 shows that of the 82 survey participants from the 88 Mission Support Squadron, 12 (15 percent) strongly disagreed or disagreed that the Internet had made them more productive while at work, 10 (12 percent) were undecided (neutral) on whether the Internet was responsible for making them more productive while at work, 60 (73 percent) agreed or strongly agreed that the Internet was responsible for making them more productive while at work.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 4.11. Considering the combined median and mode score was 4, this indicates that the survey participants agreed that the Internet was responsible for making them more productive while at work.

Section III, Question 14
When at work, more time is spent on work issues versus personal issues.

	AFRL	%	88MSS	%	Combined	%
Strongly Disagree	1	6%	4	5%	5	5%
Disagree	0	0%	4	5%	4	4%
Neutral	0	0%	3	4%	3	3%
Agree	6	33%	23	29%	29	30%
Strongly Agree	11	61%	45	57%	56	58%
Total	18	100%	79	100%	97	100%

	AFRL	88MSS	Combined
Mean	4.44	4.21	4.32
Median	5	5	5
Mode	5	5	5
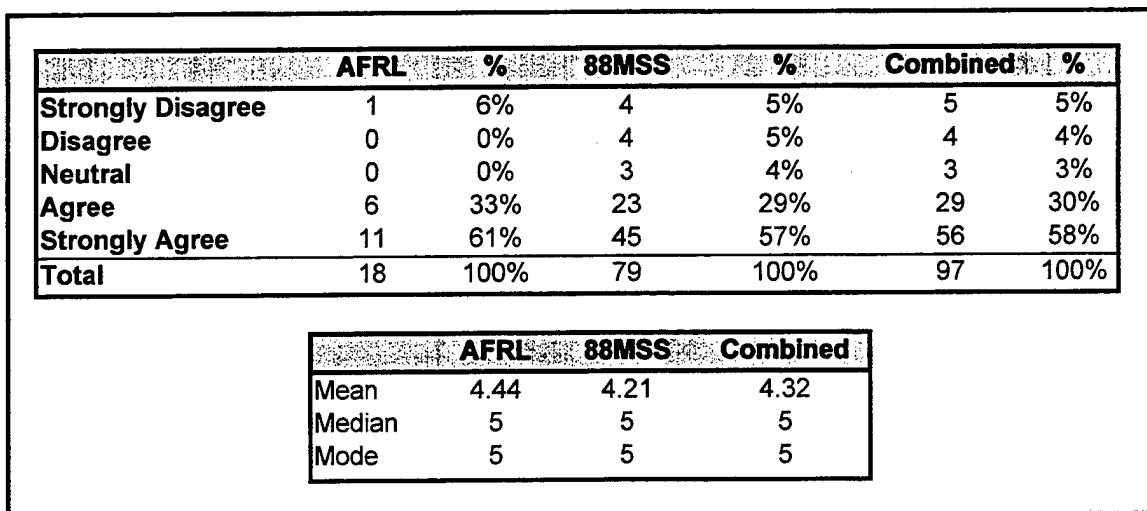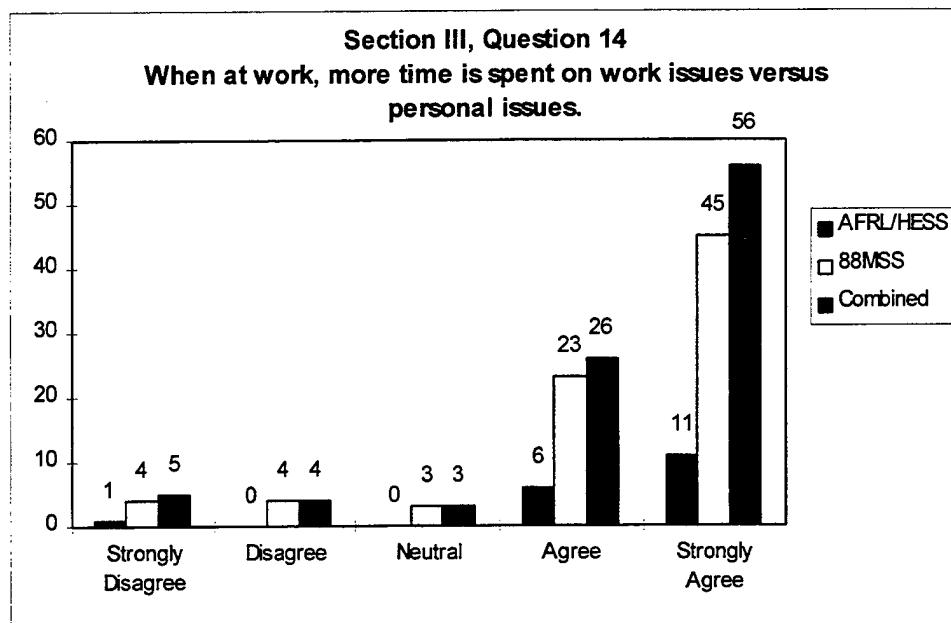
Figure 12: When at work, more time is spent on work issues versus personal.

Figure 12 shows that of the 97 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 5 (5 percent) strongly disagreed that, when at work, personnel

were spending more time on work issues than personal issues, 4 (4 percent) disagreed that

when at work personnel were spending more time on work issues than personal issues, 3 (3

percent) were undecided (neutral) whether personal were spending more time on work or personal issues, 29 (30 percent) agreed that personnel were spending more time on work issues than personal issues while at work, 56 (58 percent) strongly agreed that personnel were spending more time on work issues than personal issues while at work.

Figure 12 also shows that of the 18 survey participants from AFRL/HESS, 1(6 percent) strongly disagreed or disagreed that personnel were spending more time on work issues than personal issues while at work, 0 (0 percent) are undecided (neutral) whether personnel were spending more time on work issues than personal issues while at work, 17 (94 percent) agreed or strongly agreed that personnel were spending more time on work issues than personal issues while at work.

Figure 12 shows that of the 79 survey participants from the 88 Mission Support Squadron, 8 (10 percent) strongly disagreed or disagreed that personnel were spending more time on work issues than personal issues while at work, 3 (4 percent) were undecided (neutral) whether personnel were spending more time on work issues than personal issues while at work, 68 (86 percent) agree or strongly agree that personnel were spending more time on work issues than personal issues while at work.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 4.32. Considering that the combined median and mode score was 5, this indicates that the survey participants strongly agreed that other members are using the Internet for work issues instead of for personal issues while at work.

Table 4: What time of day do you typically browse the Internet?

Section III, Question 15				Work Use			
	AFRL/HESS				88MSS		
	Yes	%	No	%	Yes	%	No	%
Varies throughout the day	19	86%	3	14%	65	84%	13	16%
5am - Noon	6	27%	16	73%	10	13%	68	87%
Noon - 5pm	6	27%	16	73%	8	10%	70	90%
5pm - 9 pm	0	0%	22	100%	1	1%	77	99%
9pm - Midnight	0	0%	22	100%	0	0%	78	100%
Midnight - 5 am	0	0%	22	100%	0	0%	78	100%

Section III, Question 15				Personal Use			
	AFRL/HESS				88MSS		
	Yes	%	No	%	Yes	%	No	%
Varies throughout the day	3	21%	11	79%	8	21%	31	79%
5am - Noon	2	14%	12	86%	1	3%	38	97%
Noon - 5pm	1	7%	13	93%	5	13%	34	87%
5pm - 9 pm	9	64%	5	36%	17	44%	22	56%
9pm - Midnight	5	36%	9	64%	13	33%	26	67%
Midnight - 5 am	0	0%	11	100%	11	21%	41	79%

Table 4 shows the typical time of day that AFRL/HESS and the 88 Mission

Support Squadron browsed the Internet for work. Table 4 also shows that 19 (86 percent)

out of 22 AFRL/HESS members who responded to this question, normally browsed the

Internet throughout the day while at work, 65 (84 percent) out of the 78 members from the

88 Mission Support Squadron who responded to this question also browsed the Internet

throughout the day while at work. This table shows that the majority of the members from

both squadrons browsed the Internet throughout the day while at work.

Table 4 also shows the typical time of the day that the members of AFRL/HESS

and the 88 Mission Support Squadron browsed the Internet for personal use. Table 4

shows that 3 (21 percent) out of 14 AFRL/HESS members who responded to this question, normally browsed the Internet throughout the day for personal use while at work, 8 (21 percent) out of the 39 members from the 88 Mission Support Squadron who responded to this question, typically browsed the Internet throughout the day for personal use while at work. Table 4 shows that the majority of members from AFRL/HESS and the 88 Mission Support Squadron typically browsed the Internet throughout the day for work use instead of personal use.

Table 5: On average how often do you use the Internet?

Section III, Question 16	Work Use (WU)				Personal Use (PU)				Combined			
	AFRL	%	88MSS	%	AFRL	%	88MSS	%	WU	%	PU	%
Not at all	0	0%	2	3%	1	6%	3	6%	2	2%	4	6%
Less than once a day	1	5%	23	29%	7	44%	18	38%	24	24%	25	40%
About once a day	7	32%	22	28%	3	19%	16	34%	29	29%	19	30%
2 or 3 times a day	5	23%	16	21%	5	31%	7	15%	21	21%	12	19%
4 to 6 times a day	4	18%	8	10%	0	0%	3	6%	12	12%	3	5%
more than 6 times	5	23%	7	9%	0	0%	0	0%	12	12%	0	0%
Total	22	100%	78	100%	16	100%	47	100%	100	100%	63	100%

Table 5 shows how often the members of AFRL/HESS and the 88 Mission Support Squadron used the Internet for work use. Two (2 percent) did not use the Internet at all for work use, 24 (24 percent) used the Internet less than once a day for work use, 29 (29 percent) used the Internet once a day for work use, 21 (21 percent) used the Internet two or three times a day for work use, 12 (12 percent) used the Internet four to six times a day for work use, and 12 (12 percent) used the Internet more than six times a day for work use. Table 5 also shows that 74 (74 percent) of the members of each squadron typically used the Internet between less than one time a day to two or three times a day while at work for work use.

Table 5 also shows how often the members of AFRL/HESS and the 88 Mission Support Squadron used the Internet for personal use while at work. Four (6 percent) did not use the Internet at all for personal use while at work, 25 (40 percent) used the Internet less than one time a day for personal use while at work, 19 (30 percent) used the Internet at once a day for personal use while at work, 12 (19 percent) used the Internet two or three times a day for personal use while at work, 3 (5 percent) used the Internet four or six times a day for personal use while at work, 0 (0 percent) used the Internet more than six times a day for personal use while at work. Table 5 also shows that 44 (70 percent) of the members of each squadron typically used the Internet between less than one time a day and at least once a day for personal use while at work.

Section III, Question 17 (AFRL/HESS)
On average, how much time during the duty day do you believe you spend on the Internet while at work?
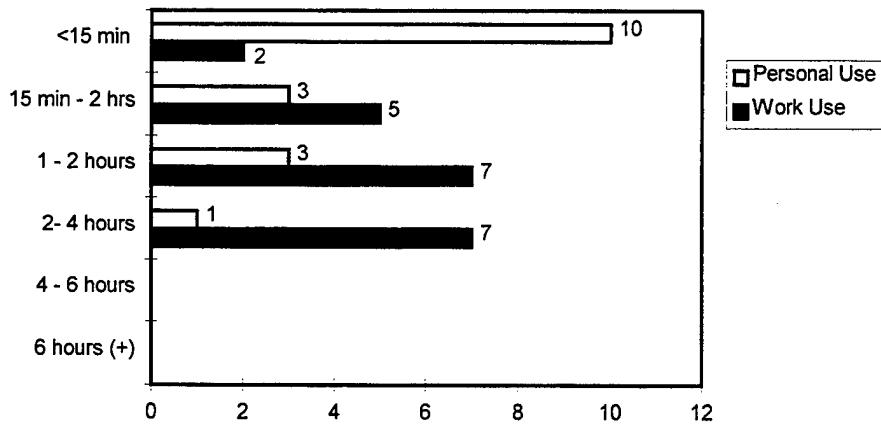
AFRL/HESS	Work Use	%	Personal Use	%
6 hours (+)	0	0%	0	0%
4 - 6 hours	0	0%	0	0%
2- 4 hours	7	33%	1	6%
1 - 2 hours	7	33%	3	18%
15 min - 2 hrs	5	24%	3	18%
<15 min	2	10%	10	59%
Total	21	100%	17	100%

AFRL/HESS	Work Use	Personal Use
Mean	4.09	5.29
Median	4	6
Mode	3	6

Figure 13: On average, how much time during the duty day do you believe you spend on the Internet while at work? (AFRL/HESS)

Figure 13 shows how much time during the day the members of AFRL/HESS

typically spent on the Internet for work use and personal use while at work. No members

(0 percent) spent over six hours on the Internet for work use, 0 (0 percent) spent between

four - six hours on the Internet for work use, 7 (33 percent) spent between two and four

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hours on the Internet for work use, 7 (33 percent) spent between one and two hours on the Internet for work use, 5 (24 percent) spent between 15 minutes and two hours on the Internet for work use, 2 (10 percent) spent less than 15 minutes on the Internet for work use.

Figure 13 also shows how much time during the day the members of AFRL/HESS typically spent on the Internet for personal use while at work. No members (0 percent) spent over six hours on the Internet for personal use while at work, 0 (0 percent) spent between four and six hours on the Internet for personal use while at work, 1 (6 percent) spent between two and four hours on the Internet for personal use while at work, 3 (18 percent) spent between one and two hours on the Internet for personal use while at work, 3 (18 percent) spent between 15 minutes and two hours on the Internet for personal use while at work, 10 (59 percent) spent less than 15 minutes on the Internet for personal use while at work.

The mean score for AFRL/HESS for using the Internet for work use was 4.09 and for using the Internet for personal use while at work was 5.29. The median and mode scores for work use were 4 and 3. The median and mode scores for personal use were 6 and 6. These scores indicate that the members of AFRL/HESS used the Internet between one and two hours a day for work use and less than 15 minutes a day for personal use.

Section III, Question 17 (88 MSS)
On average, how much time during the day do you believe you spend on the Internet while at work?

88 MSS	Work Use	%	Personal Use	%
6 hours (+)	1	1%	0	0%
4 - 6 hours	0	0%	1	2%
2- 4 hours	6	8%	3	7%
1 - 2 hours	15	19%	5	11%
15 min - 2 hrs	35	44%	11	24%
<15 min	22	28%	26	57%
Total	79	100%	46	100%

AFRL/HESS	Work Use	Personal Use
Mean	4.88	5.13
Median	5	6
Mode	5	6
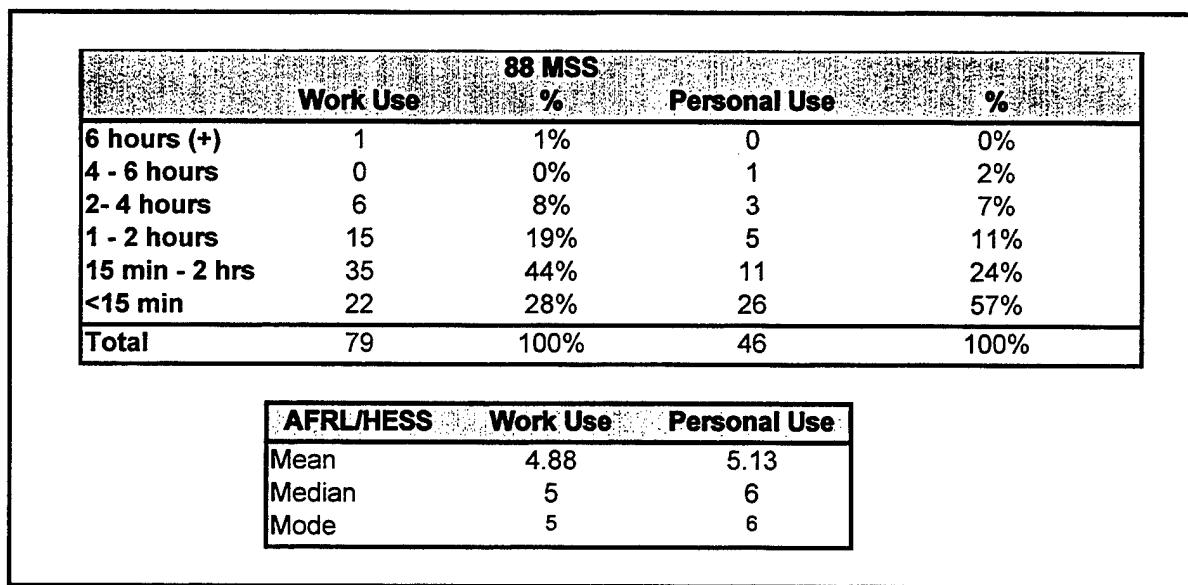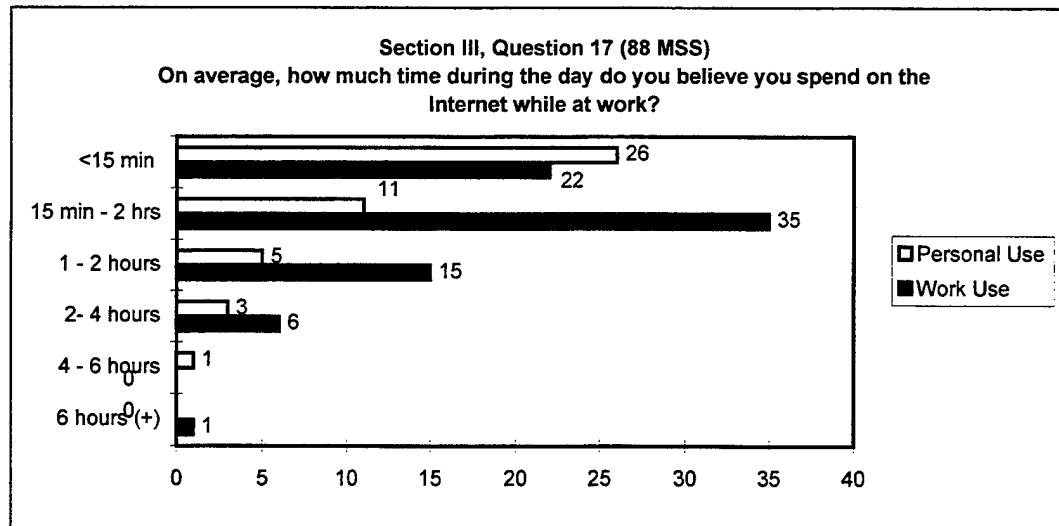
Figure 14: On average, how much time during the duty day do you spend on the Internet while at work? (88 MSS)

Figure 14 shows how much time during the day the members of the 88 Mission Support Squadron typically spent on the Internet for work use and personal use while at work. The members of the 88 Mission Support Squadron normally spent, 1 (1 percent) over six hours on the Internet for work use, 0 (0 percent) spent between four and six hours on the Internet for work use, 6 (8 percent) spent between two and four hours on the Internet

for work use, 15 (19 percent) spent between one and two hours on the Internet for work use, 35 (44 percent) spent between 15 minutes and two hours on the Internet for work use, and 22 (28 percent) spent less than 15 minutes on the Internet for work use.

Figure 14 also shows how much time during the day the members of the 88 Mission Support Squadron typically spent on the Internet for personal use while at work. No members (0 percent) spent over six hours on the Internet for personal use while at work, 1 (2 percent) spent between four and six hours on the Internet for personal use while at work, 3 (7 percent) spent between two and four hours on the Internet for personal use while at work, 5 (11 percent) spent between one and two hours on the Internet for personal use while at work, 11 (24 percent) spent between 15 minutes and two hours on the Internet for personal use while at work, and 26 (57 percent) spent less than 15 minutes on the Internet for personal use while at work.

The mean score for the 88 Mission Support Squadron for using the Internet for work use was 4.88 and for using the Internet for personal use while at work was 5.13. The median and mode scores for work use were 5 and 5. The median and mode scores for personal use were 6 and 6. These scores indicate that the members of the 88 Mission Support Squadron used the Internet between 15 minutes and two hours a day for work use and less than 15 minutes a day for personal use.

Section III, Question 18 (AFRL/Work Use)

Activity	No	Yes
Official Use	11	11
FTP	19	4
E-mail	6	16
Playing games	21	1
Sport Scores	23	0
Stock and bonds	22	0
Browsing the Net	10	13
Posting info	22	2
Search	7	16
AFPC	14	9
News	11	12
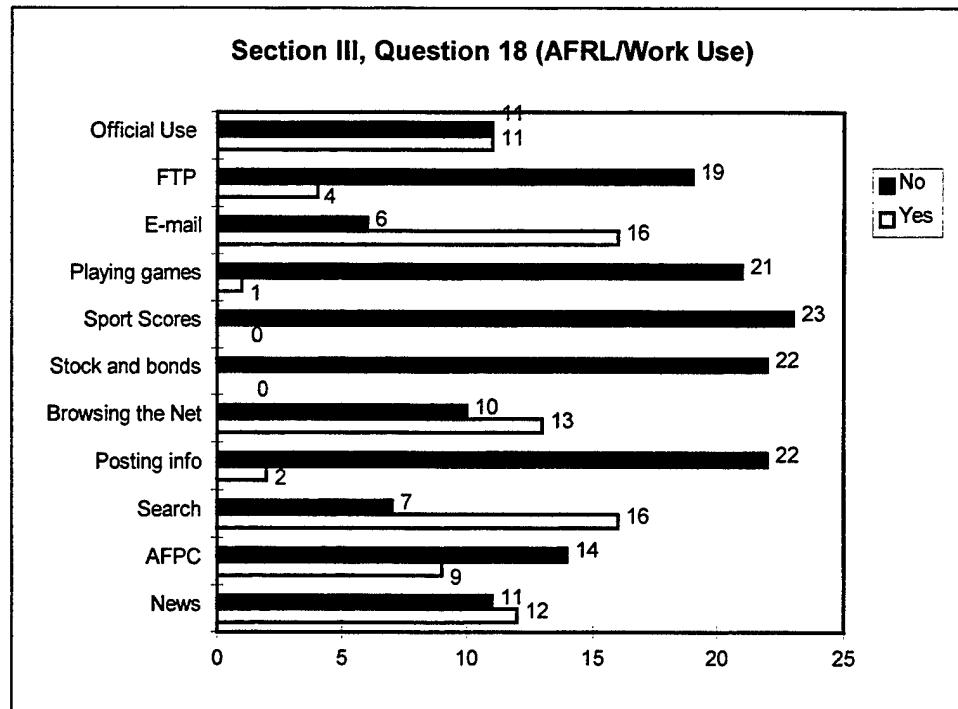
Figure 15: How many times a day do you use your computer to do the following activities? (AFRL/HESS work use)

Section III, Question 18 (88 MSS/Work Use)

Activity	No	Yes
Official Use	51	31
FTP	76	5
E-mail	35	47
Playing games	81	
Sport Scores	81	
Stock and bonds	80	1
Browsing the Net	67	14
Posting info	72	9
Search	38	43
AFPC	58	23
News	54	27
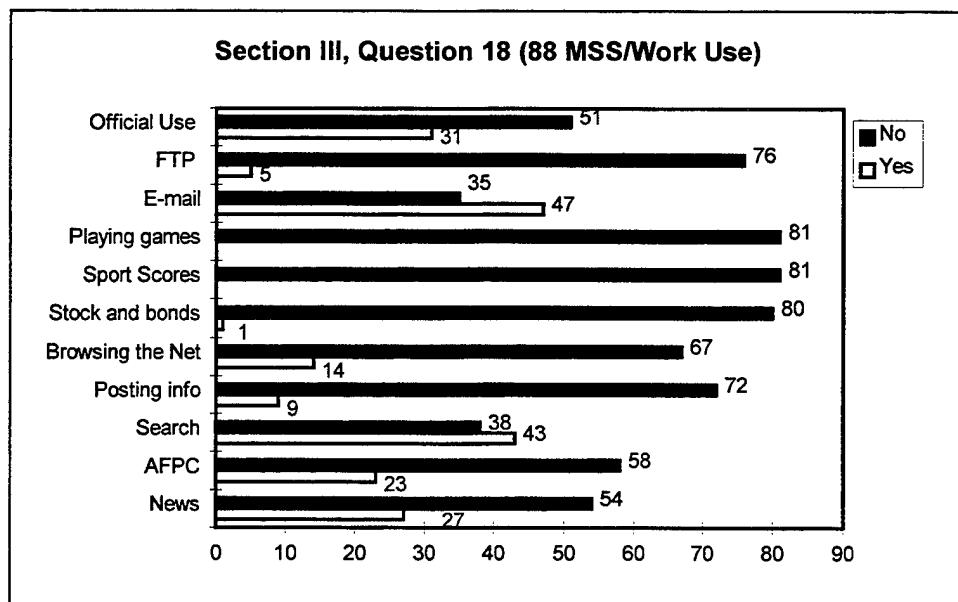
Figure 16: How many times a day do you use your computer to do the following activities? (88 MSS work use)

Table 6: How many times a day do you use your computer to do the following activities? (AFRL/HESS and 88 MSS Work Use)

Work Use Uses of the Internet	88 MSS				AFRL/HESS			
	Yes	%	No	%	Yes	%	No	%
News	27	33%	54	67%	12	52%	11	48%
AFPC Homepage	23	28%	58	72%	9	39%	14	61%
Search	43	53%	38	47%	16	70%	7	30%
Posting information	9	11%	72	89%	2	8%	22	92%
Browsing the Net	14	17%	67	83%	13	57%	10	43%
Stock and bonds	1	1%	80	99%	0	0%	22	96%
Sport Scores	0	0%	81	100%	0	0%	23	100%
Playing games	0	0%	81	100%	1	4%	21	91%
E-mail	47	58%	35	43%	16	73%	6	27%
FTP	5	6%	76	94%	4	17%	19	83%
Official Use	31	38%	51	63%	11	50%	11	50%

Figure 15 (Table 6) shows how many times the members of AFRL/HESS and the 88 Mission Support Squadron used their computer to do the different activities for work and home use that were listed in figure 15 (Table 6). The members of the 88 Mission Support Squadron normally used their computer to do many different activities while at work. Twenty seven (33 percent) checked the news at work, 23 (28 percent) went to AFPC Homepage while at work, 43 (53 percent) searched of Information while at work, 9 (11 percent) posted information on to a local home-page while at work, 14 (17 percent) used their computers to browse the Internet while at work, 1 (1 percent) used the computer to check out the latest stock prices while at work, 0 (0 percent) checked sports scores while at work, 0 (0 percent) played games while at work, 47 (58 percent) used their computers to check E-Mail, 5 (6 percent) used their computers to FTP information from one place to another, and 31 (38 percent) used their computer for official use while at work.

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Figure 16 (Table 6) also shows how the members of the 88 Mission Support

Squadron normally used their computer to do many different activities while at work.

Twelve (52 percent) checked the news while at work, 9 (39 percent) went to the AFPC

Homepage to conduct business while at work, 16 (70 percent) used their computer to

search for information relating to work, 2 (8 percent) used their computer to post

information on a local Homepage, 13 (57 percent) used their computer to browse the

Internet from work, 0 (0 percent) used their computers to check the latest price for their

stocks while at work, 0 (0 percent) used their computers to check the latest sports scores

while at work, 16 (73 percent) used their computer to check their E-mail, 4 (17 percent)

used their computer to FTP information from one location to another, and 11 (50 percent)

used their computer at work for official business.

Figures 15 and 16 (Table 6) also show that there is a large majority of individuals

from both units who used their computers strictly for official business, i.e., going to Air

Force Personnel Center's Homepage, searching for work-related information, and checking

E-Mail.

Section III, Question 18 (AFRL/Home Use)

Chart legend: No (solid), Yes (open)

Activity	No	Yes
Official Use	23	
FTP	19	4
E-mail	13	10
Playing games	22	1
Sport Scores	22	1
Stock and bonds	22	1
Browsing the Net	15	8
Posting info	20	3
Search	22	1
AFPC	23	
News	15	7
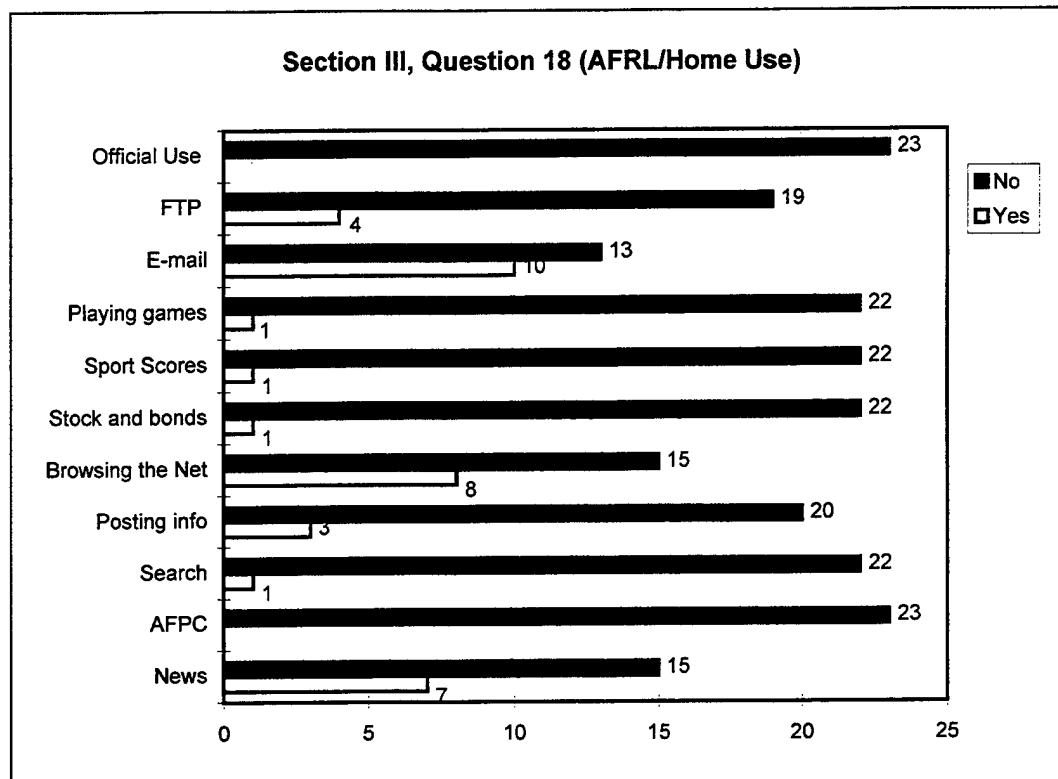
Figure 17: How many times a day do you use your computer to do the following activities? (AFRL/HESS Home use)

Section III, Question 18 (88 MSS/Home Use)

Legend:
- ■ 88 MSS No
- □ 88 MSS Yes

| Activity	88 MSS No	88 MSS Yes
Official Use	80	1
FTP	81	
E-mail	61	20
Playing games	78	3
Sport Scores	78	3
Stock and bonds	76	5
Browsing the Net	65	16
Posting info	80	1
Search	79	2
AFPC	79	2
News	72	10
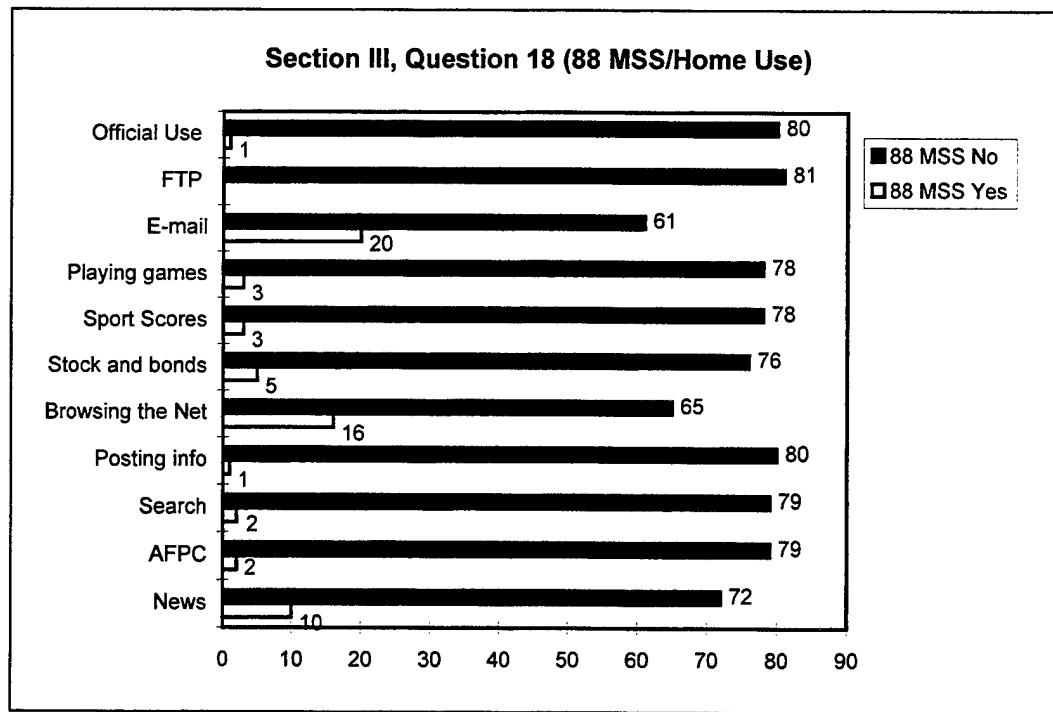
Figure 18: How many times a day do you use your computer to do the following activities? (88 MSS Home use)

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Table 7: How many times a day do you use your computer to do the following activities? (AFRL/HESS and 88 MSS Home Use)

Home Use Uses of the Internet	AFRL/HESS				88 MSS			
	Yes	%	No	%	Yes	%	No	%
News	7	32%	15	68%	10	12%	72	88%
AFPC Homepage	0	0%	23	100%	2	2%	79	98%
Search	1	4%	22	96%	2	2%	79	98%
Posting information	3	13%	20	87%	1	1%	80	99%
Browsing the Net	8	35%	15	65%	16	20%	65	80%
Stock and bonds	1	4%	22	96%	5	6%	76	94%
Sport Scores	1	4%	22	96%	3	4%	78	96%
Playing games	1	4%	22	96%	3	4%	78	96%
E-mail	10	43%	13	57%	20	25%	61	75%
FTP	4	17%	19	83%	0	0%	81	100%
Official Use	0	0%	23	100%	1	1%	80	99%

Figures 17 and 18 (Table 7) shows how many times the members of AFRL/HESS

and the 88 Mission Support Squadron used their computers to do the different activities for

work and home use that were listed in (Table 7). The members of the 88 Mission Support

Squadron normally used their computers to do many different activities while at home.

Ten (12 percent) used their home computers to read the new, 2 (2 percent) used their home

computers to check out Air Force Personal Center's Homepage, 2 (2 percent) used their

home computers to search for information, 1 (1 percent) used their home computers to post

information to a local Homepage, 16 (20 percent) used their home computers to browse the

Internet, 5 (6 percent) used their home computers to check the latest stock prices, 3 (4

percent) used their home computer to check sports scores, 3 (4 percent) used their home

computers to play games, and 20 (25 percent) used their home computers to check E-Mail.

Figure 17 (Table 7) also shows how many times the members of AFRL/HESS

normally used their computers to do many different activities while at home. Seven (32

percent) used their home computers to read the new, 0 (0 percent) used their home computers to check the assignment information on AFPC's Homepage, 1 (4 percent) used their home computers to search for information, 3 (13 percent) used their home computers to post information to a local home-page, 8 (35 percent) used their home computers to browse the Internet, 1 (4 percent) used their home computers to check the latest stock prices, 1 (4 percent) used their home computers to check out their favorite teams record, 1 (4 percent) used their home computers to play games, and 10 (43 percent) used their home computers to check E-Mail.

Figure 17 and 18 (Table 7) show that the majority of survey participants from both units used their home computer for a variety of tasks, i.e., reading the news, browsing the Internet, and checking E-Mail.

Table 8: Which Internet services do you use?

Section III, Question 19	AFRL/HESS							
	Work Use				Home Use			
	Yes	%	No	%	Yes	%	No	%
Web Browsing	19	41%	2	1%	12	23%	1	1%
E-Mail	16	35%	5	3%	12	23%	1	1%
FTP	5	11%	16	10%	3	6%	10	13%
Chat	0	0%	21	13%	3	6%	10	13%
Newsgroups/Usenet	2	4%	19	12%	6	11%	7	9%
Gopher	1	2%	21	13%	1	2%	12	16%
Internet phone	0	0%	21	13%	2	4%	11	14%
Games	1	2%	20	12%	3	6%	10	13%
Financial Status	0	0%	21	13%	7	13%	6	8%
Shopping	2	4%	18	11%	4	8%	9	12%
Total	46	100%	164	100%	53	100%	77	100%

	88 MSS							
	Work Use				Home Use			
	Yes	%	No	%	Yes	%	No	%
Web Browsing	38	36%	24	5%	20	22%	12	5%
E-Mail	41	39%	21	4%	28	31%	4	2%
FTP	6	6%	56	11%	4	4%	28	12%
Chat	1	1%	61	12%	8	9%	24	10%
Newsgroups/Usenet	6	6%	56	11%	5	6%	27	12%
Gopher	6	6%	56	11%	4	4%	28	12%
Internet phone	1	1%	61	12%	3	3%	29	13%
Games	1	1%	61	12%	8	9%	24	10%
Financial Status	4	4%	59	11%	5	6%	27	12%
Shopping	2	2%	60	12%	4	4%	28	12%
Total	106	100%	515	100%	89	100%	231	100%

Table 8 shows the Internet services that AFRL/HESS and the 88 Mission Support Squadron survey participants used while at work and at home. The survey participants from AFRL/ HESS most often used the Internet for web browsing (41 percent) and E-Mail (35 percent). The AFRL/HESS survey participants also used the Internet services from home use as well, i.e., web browsing (23 percent), E-Mail (23 percent) and (13 percent)

checking financial status. A majority of the Internet services that are used by the members of AFRL/HESS are services that have been approved by the Air Force.

Table 8 also shows the Internet services that the 88 Mission Support Squadron survey participants used while at work and at home. The survey participants from 88 MSS normally used the Internet for web browsing (36 percent), and E-Mail (39 percent) for work use. The members of the 88 MSS also used the Internet services at home for such things as browsing the Internet (22 percent), sending and receiving E-Mail (31 percent), and playing games (9 percent). As shown before with AFRL/HESS, the members of the 88 Mission Support Squadron seemed to be using Internet services that have been approved by the Air Force.

Section III, Question 20
Of those individuals in your organization who use the Internet at work,
what portion of that Internet use do you believe is actually job related and
what portion may be considered personal?

Strictly Job Related — 7, 7

Mostly Job Related/Some Personal — 52, 39, 13

Half Personal/Half Job Related — 18, 16, 2

Mostly Personal/Some Job Related — 18, 15, 3

Strictly Personal

Legend: ■ Combined □ 88MSS ■ AFRL/HESS

(x-axis: 0 10 20 30 40 50 60)
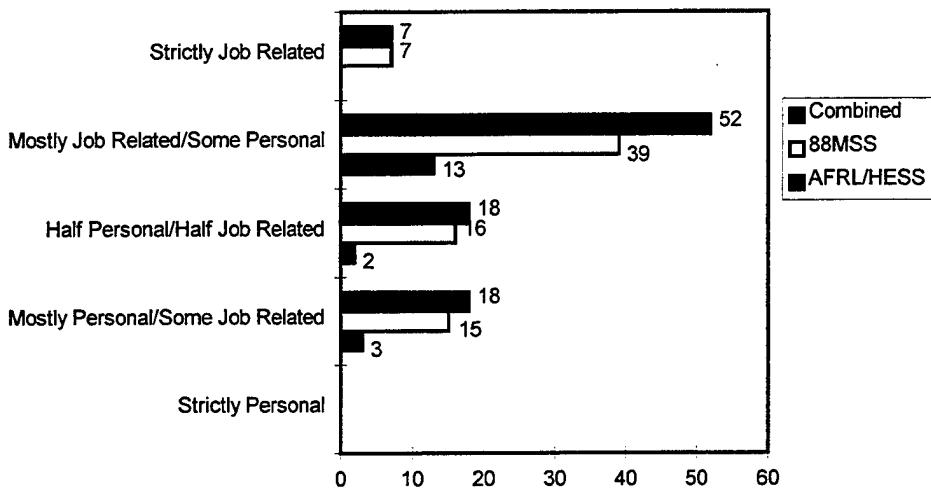
	AFRL/HESS	%	88MSS	%	Combined	%
Strictly Personal	0	0%	0	0%	0	0%
Mostly Personal	3	17%	15	19%	18	19%
Half Personal	2	11%	16	21%	18	19%
Mostly Job Related	13	72%	39	51%	52	55%
Strictly Job Related	0	0%	7	9%	7	7%
Total	18	100%	77	100%	95	100%

	AFRL/HESS	88MSS	Combined
Mean	3.27	3.55	3.41
Median	4	4	4
Mode	4	4	4

Figure 19: Of those individuals in your organization who use the Internet at work, what portion of that Internet use do you believe is actually job related and what portion may be considered personal?

Figure 19 shows that of the 95 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 0 (0 percent) believed that the Internet is used for strictly

personal issues at work, 18 (19 percent) believed that the Internet is used for mostly

personal issues while at work, 18 (19 percent) believed that the Internet is used for half

personal and half job related issues while at work, 52 (55 percent) believed that the Internet is used for mostly job related issues while at work, and 7 (7 percent) believed that the Internet is used for strictly job related issues while at work.

Figure 19 also shows that of the 18 survey participants from AFRL/HESS, 0 (0 percent) believed that the Internet is used for strictly personal issues while at work, 3 (17 percent) believed that the Internet is used for mostly personal issues while at work, 2 (11 percent) believed that the Internet is used for half personal and half job related issues while at work, 13 (72 percent) believed that the Internet is used for mostly job related issues while at work, and 0 (0 percent) believed that the Internet is used for strictly job related issues while at work.

Figure 19 shows as well that of the 77 survey participants from the 88 Mission Support Squadron, 0 (0 percent) believed that the Internet is used for strictly personal issues while at work, 15 (19 percent) believed that the Internet is used for mostly personal issues while at work, 16 (21 percent) believed that the Internet is used for half personal and half job related issues while at work, 39 (51 percent) believed that the Internet is used for mostly job related issues while at work, and 7 (9 percent) believed that the Internet is used for strictly job related issues while at work.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 3.41. Considering the combined median and mode score was 4, this indicates that the survey participants believed that the Internet is used for mostly job-related issues while at work.

Section IV: The Effects of Internet Misuse on Productivity Survey

Section IV was designed to investigate the survey participant's thoughts on how the Internet affects their productivity level while at work. Section IV was also designed to see how the Internet can affect an individual's efficiency level and to test if there was a problem of Internet misuse within the organizations that participated in the survey. The survey participant's results are illustrated below.

Section IV, Question 21
My productivity suffers as a results of spending too much time on the
Internet during duty hours
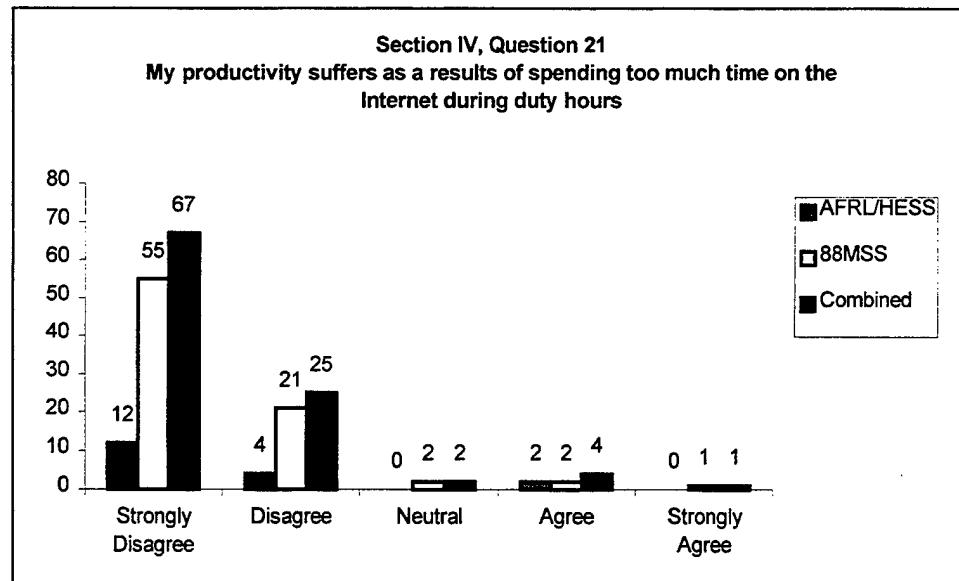
	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	12	67%	55	68%	67	68%
Disagree	4	22%	21	27%	25	25%
Neutral	0	0%	2	2%	2	2%
Agree	2	11%	2	2%	4	4%
Strongly Agree	0	0%	1	1%	1	1%
Total	18	100%	81	100%	99	100%

	AFRL/HESS	88MSS	Combined
Mean	1.43	1.55	1.45
Median	1	1	1
Mode	1	1	1

Figure 20: My work productivity suffers as a result of spending too much time on the Internet during duty hours.

Figure 20 shows that of the 99 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 67 (68 percent) strongly disagreed that their productivity level

suffers because of spending too much time on the Internet during duty hours, 25 (25

percent) disagreed that their productivity level suffers because of spending too much time

on the Internet during duty hours, 2 (2 percent) were undecided (neutral) on whether or not

spending too much time on the Internet affected their productivity level while work, 4 (4 percent) agreed that their productivity level suffers because of spending too much time on the Internet during the duty day, 1 (1 percent) strongly agreed that their productivity level suffers because of spending too much time on the Internet during the duty day.

Figure 20 also shows that of the survey participants from AFRL/HESS, 16 (69 percent) strongly disagreed or disagreed that their productivity level suffers because of spending too much time on the Internet during the duty day, 0 (0 percent) were undecided (neutral) on whether or not the Internet affected their productivity level during the duty day, 2 (11 percent) agreed or strongly agreed that their productivity levels suffers because of spending too much time on the Internet during the duty day.

Figure 20 shows as well, that of the survey participants from the 88 Mission Support Squadron, 76 (95 percent) strongly disagreed or disagreed that their productivity level suffers because of spending too much time on the Internet during the duty day, 2 (2 percent) were undecided (neutral) on whether or not the Internet affected their productivity level during the duty day, 3 (3 percent) agreed or strongly agreed that their productivity level suffers because of spending too much time on the Internet during the duty day.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 1.45. Considering the combined median and mode score was 1, this indicates that the survey participants strongly disagreed that Internet does not affect their productivity levels because of spending too much time on the Internet during the duty day.

Section IV, Question 22
I have difficulty limiting the time I spend on the Internet while at work.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	12	67%	63	78%	76	77%
Disagree	6	33%	15	19%	21	21%
Neutral	0	0%	3	3%	3	2%
Agree	0	0%	0	0%	0	0%
Strongly Agree	0	0%	0	0%	0	0%
Total	18	100%	81	100%	99	100%

	AFRL/HESS	88MSS	Combined
Mean	1.33	1.25	1.29
Median	1	1	1
Mode	1	1	1
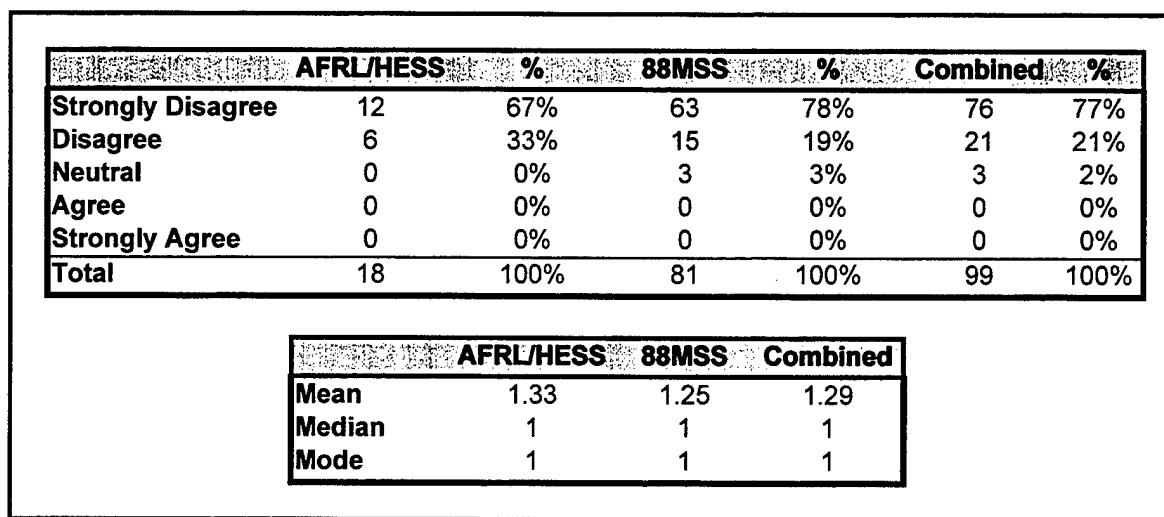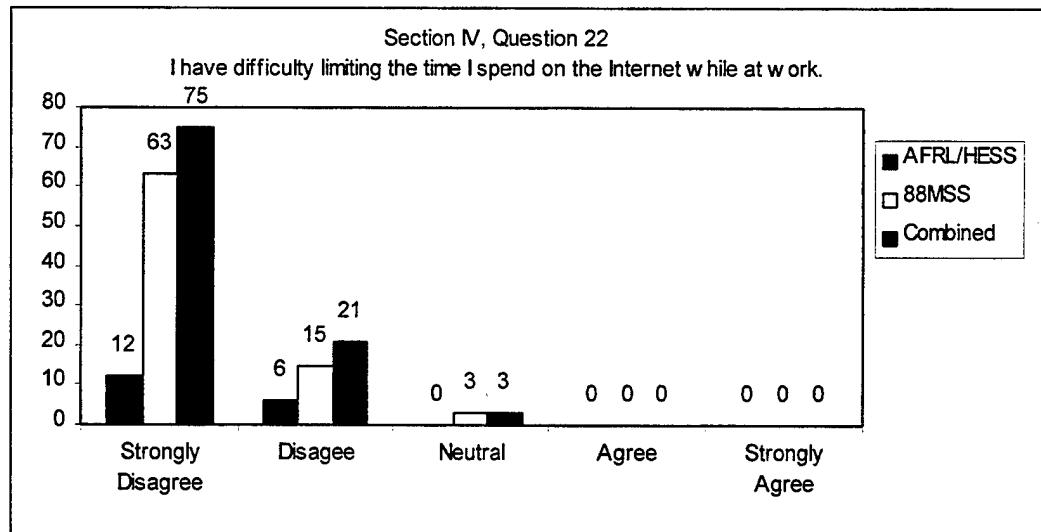
Figure 21: I have difficulty limiting the time I spend on the Internet while at work.

Figure 21 shows that of the 99 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 76 (77 percent) strongly disagreed that they had difficulty

limiting the amount of time they spent on the Internet while at work, 21 (21 percent)

disagreed that they had difficulty limiting the amount of they spent on the Internet while at

work, 3 (2 percent) were undecided (neutral) on whether or not they had difficulty limiting

the amount of time they spent on the Internet while at work, and 0 (0 percent) agreed or

strongly agreed that they had difficulty limiting the amount of time they spent on the Internet while at work.

Figure 21 also shows that of the survey participants from AFRL/HESS, 18 (100 percent) strongly disagreed or disagreed that they had difficulty limiting the amount of time they spent on the Internet while at work, and 0 (0 percent) agreed, strongly agreed or were neutral about having difficulty limiting amount of time they spent on the Internet while at work.

Figure 21 also shows as well, that of the survey participants from the 88 Mission Support Squadron, 96 (98 percent) strongly disagreed or disagreed that they had difficulty limiting the amount of time they spend on the Internet while at work, 3 (2 percent) were undecided (neutral) on whether or not they had difficulty limiting the amount of time they spent on the Internet while at work, and 0 (0 percent) agreed or strongly disagreed that they had difficulty limiting the amount of time they spent on the Internet while at work.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 1.29. Considering the combined median and mode score was 1, this indicates that the survey participants believed that they did not have a problem limiting the amount of time they spent on the Internet while at work.

Section IV, Question 23
My Co-workers and supervisors are comfortable with the amount of time I spend on the Internet.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	1	6%	1	1%	2	2%
Disagree	0	0%	0	0%	0	0%
Neutral	4	22%	16	20%	20	20%
Agree	7	39%	18	22%	25	25%
Strongly Agree	6	33%	46	57%	52	53%
Total	18	100%	81	100%	99	100%

	AFRL/HESS	88MSS	Combined
Mean	4.16	4.28	4.22
Median	4	5	5
Mode	4	5	5
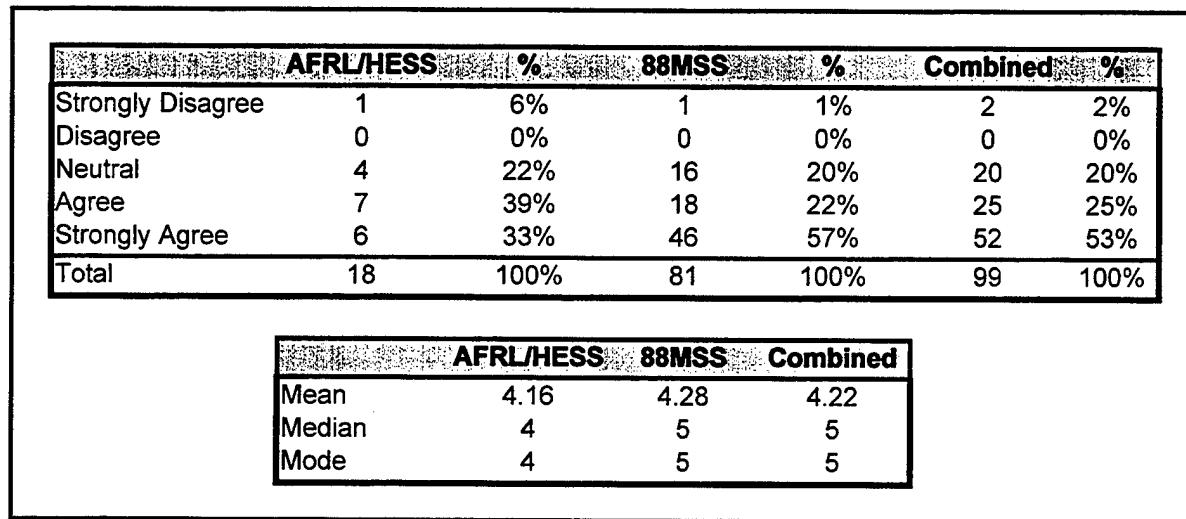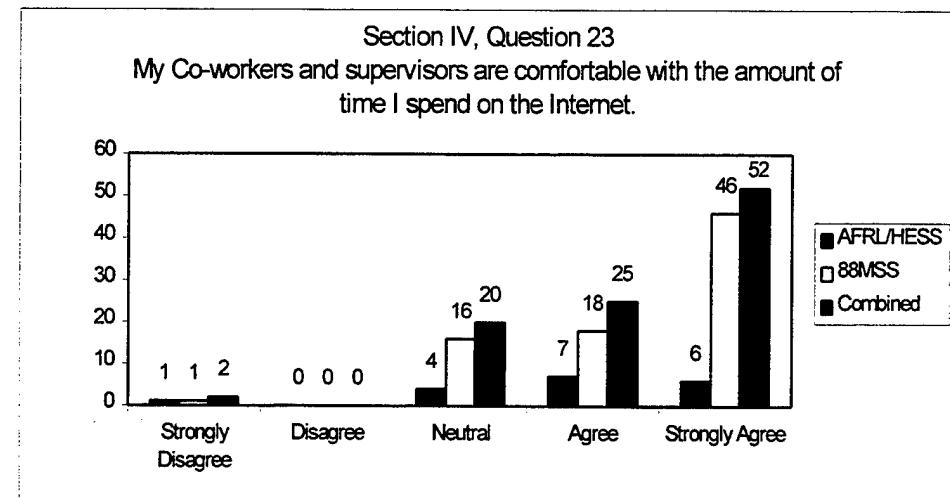
Figure 22: My co-workers and supervisors are comfortable with the amount of time I spend on the Internet.

Figure 22 shows that of the 99 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 2 (2 percent) strongly disagreed that their co-workers and

supervisors were uncomfortable with amount of time they spent on the Internet, 0 (0

percent) disagreed that their co-workers and supervisors were uncomfortable with the

amount of time they spent on the Internet, 20 (20 percent) were undecided (neutral) on

whether or not their co-workers and supervisors were happy with the amount of time they

spent on the Internet, 25 (25 percent) agreed that their co-workers and supervisors were comfortable with the amount of time they spent on the Internet, 52 (53 percent) strongly agreed that their co-workers and supervisors were comfortable with the amount of time they spent on the Internet.

Figure 22 also shows that of the survey participants from AFRL/HESS, 1 (6 percent) strongly disagreed or disagreed that their supervisor was uncomfortable with the amount of time they spent on the Internet, 4 (22 percent) were undecided (neutral) on whether or not their supervisors were comfortable with the amount of time they spent on the Internet, 13 (72 percent) agreed or strongly agreed that their co-workers and supervisors were comfortable with the amount of time they spent on the Internet.

Figure 22 also shows that of the survey participants from the 88 Mission Support Squadron, 1 (1 percent) strongly disagreed or disagreed that their co-workers and supervisors were uncomfortable with the amount of time they spent on the Internet, 16 (20 percent) were undecided (neutral) whether or not their co-workers and supervisors were comfortable with the amount of time they spent on the Internet, 64 (79 percent) agreed or strongly agreed that their co-workers and supervisors were comfortable with the amount of time they spent on the Internet.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 4.22. Considering the combined median and mode score was 5, this indicates that the survey participants believed that their co-workers and supervisors were comfortable with the amount of time they spent on the Internet while at work.

Section IV, Question 24
My work output has suffered as a result of spending too much time on the Internet.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	19	86%	62	77%	82	79%
Disagree	3	14%	13	16%	16	15%
Neutral	0	0%	3	4%	3	3%
Agree	0	0%	1	1%	1	1%
Strongly Agree	0	0%	2	2%	2	2%
Total	22	100%	81	100%	104	100%

	AFRL/HESS	88MSS	Combined
Mean	1.13	1.35	1.24
Median	1	1	1
Mode	1	1	1
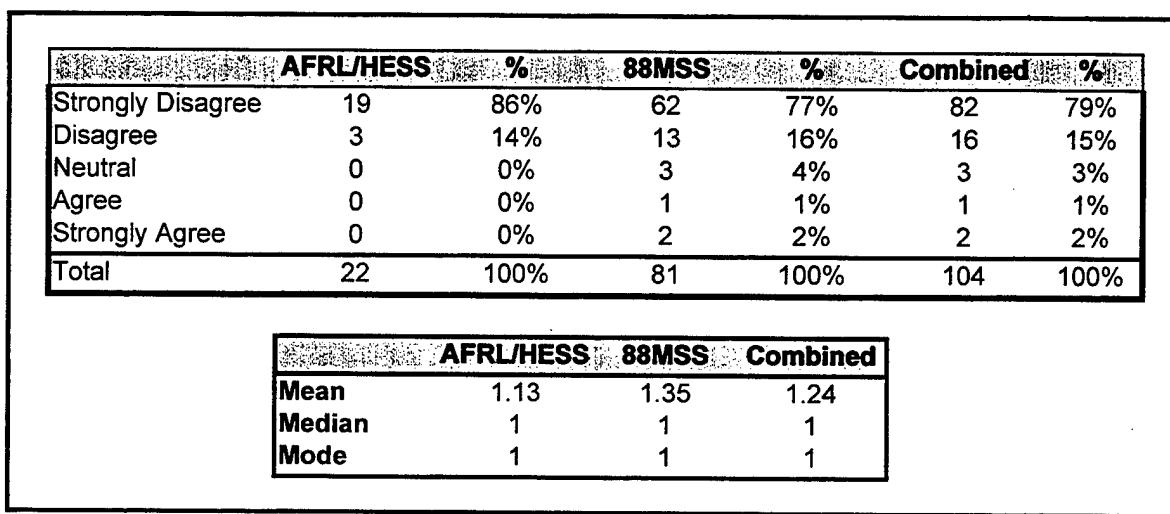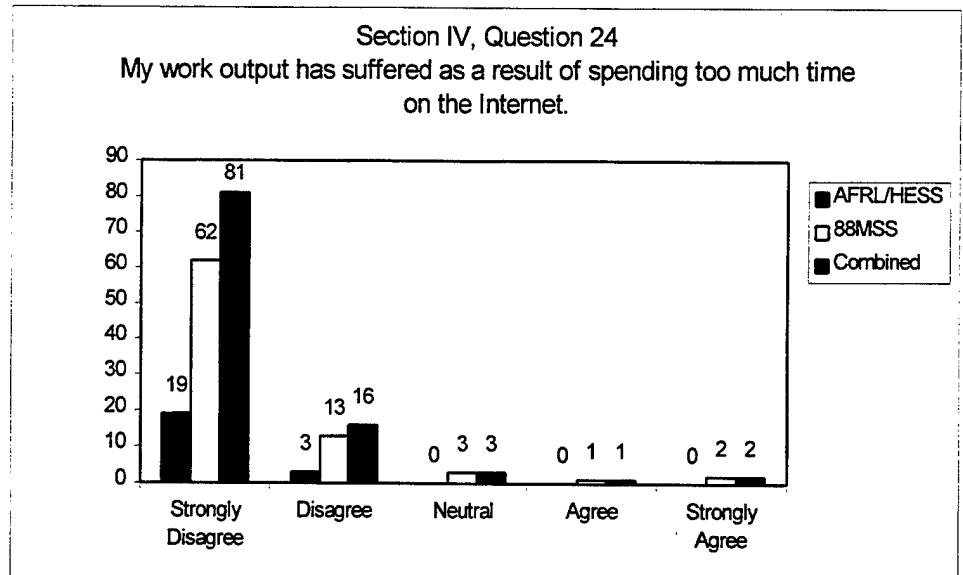
Figure 23: My work output has suffered as a result of spending too much time on the Internet.

Figure 23 shows that of the 104 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 82 (79 percent) strongly disagreed that their output has

suffered as a result of spending too much time on the Internet while at work, 16 (15

percent) disagreed that their output has suffered as a result of spending too much time on

the Internet while at work, 3 (3 percent) were undecided (neutral) on whether or not their

work output has suffered as result of spending too much time on the Internet, 1 (1 percent) agreed that their output has suffered as a result of spending too much time on the Internet while at work, 2 (2 percent) strongly agreed that their output has suffered as a result of spending too much time on the Internet while at work.

Figure 23 also shows that of the survey participants from AFRL/HESS, 22 (100 percent) strongly disagreed or disagreed that their output has suffered as a result of spending too much time on the Internet while at work, 0 (0 percent) were undecided, agree and strongly agreed that their output has suffered as a result of spending too much time on the Internet while at work.

Figure 23 also shows as well that of the survey participants form the 88 Mission Support Squadron, 75 (93 percent) strongly disagreed or disagreed that their output has suffered as a result of spending too much time on the Internet while at work, 3 (3 percent) were undecided (neutral) on whether or not their output has suffered as a result of spending too much time on the Internet while at work, 3 (3 percent) agreed or strongly agreed that their output has suffered as a result of spending too much time on the Internet while at work.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 1.24. Considering the combined median and mode score was 1, this indicates that the survey participants strongly disagreed that their output level has not suffered from spending too much time on the Internet while at work.

Section IV, Question 25
Having access to the Internet has positively impacted my efficiency in my job.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	2	9%	6	7%	8	8%
Disagree	0	0%	5	6%	5	5%
Neutral	1	4%	12	15%	13	13%
Agree	11	48%	34	42%	45	43%
Strongly Agree	9	39%	24	30%	33	32%
Total	23	100%	81	100%	104	100%

	AFRL/HESS	88MSS	Combined
Mean	4.47	3.80	4.14
Median	4	4	4
Mode	4	4	4
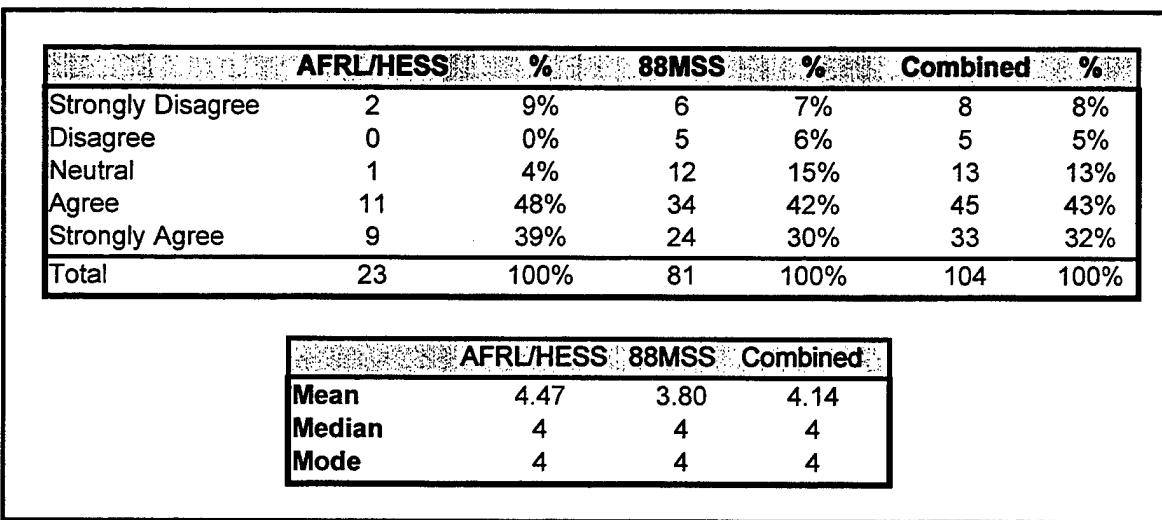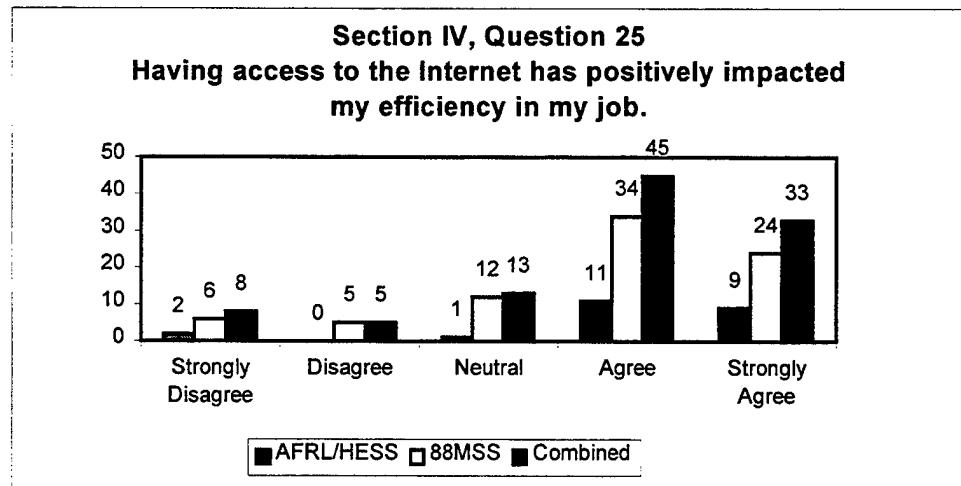
Figure 24: Having access to the Internet has positively impacted my efficiency in my job.

Figure 24 shows that of the 104 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 8 (8 percent) strongly disagreed that having the Internet access

at work has positively impacted their job efficiency, 5 (5 percent) disagree that having

Internet access while at work has positively impact their job efficiency, 13 (13 percent)

were undecided (neutral) on whether having Internet access at work has positively

impacted their job efficiency, 45 (43 percent) agreed that having the Internet access while at work has positively impacted their job efficiency, 33 (32 percent) strongly agreed that having the Internet access while at work has positively impacted their job.

Figure 24 also shows that of the survey participants from AFRL/HESS, 2 (9 percent) strongly disagreed or disagreed that having the Internet access while at work has positively impacted their job, 1 (4 percent) were undecided (neutral) on whether or not having Internet access has positively impacted their job efficiency while at work, 20 (87 percent) agreed or strongly agreed that having Internet access while at work has positively impacted their job efficiency.

Figure 24 also shows as well that of the survey participants from the 88 Mission Support Squadron, 11 (13 percent) strongly disagreed or disagreed that having Internet access while at work has positively impacted their job efficiency, 12 (15 percent) were undecided (neutral) on whether or not having Internet access has positively impacted their job efficiency while at work, 58 (72 percent) agreed or strongly agreed that having Internet access while at work has positively impacted their job efficiency.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 4.14. Considering the combined median and mode score was 4, this indicates that the survey participants agreed that having Internet access while at work has positively impacted their job efficiency.

Figure 25: I perceive a problem within my organization with Internet use.

Section IV, Question 26
I perceive a problem within my organization wih Internet use.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	10	43%	15	19%	15	15%
Disagree	8	35%	37	46%	37	36%
Neutral	3	13%	20	25%	20	19%
Agree	2	9%	5	6%	5	5%
Strongly Agree	0	0%	4	5%	4	4%
Total	23	100%	81	100%	104	100%

	AFRL/HESS	88MSS	Combined
Mean	1.87	2.33	2,13
Median	1	2	2
Mode	1	2	2
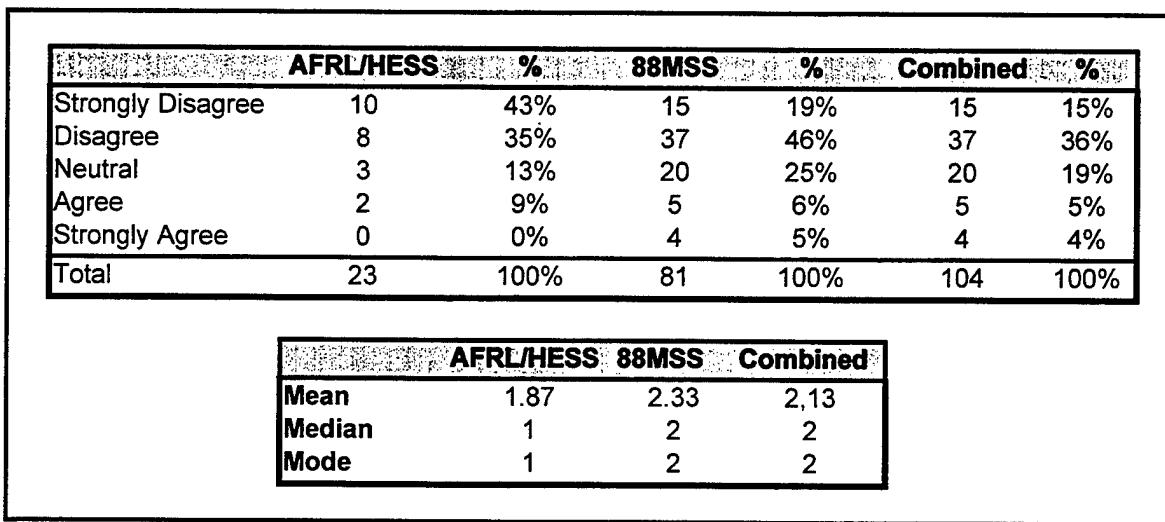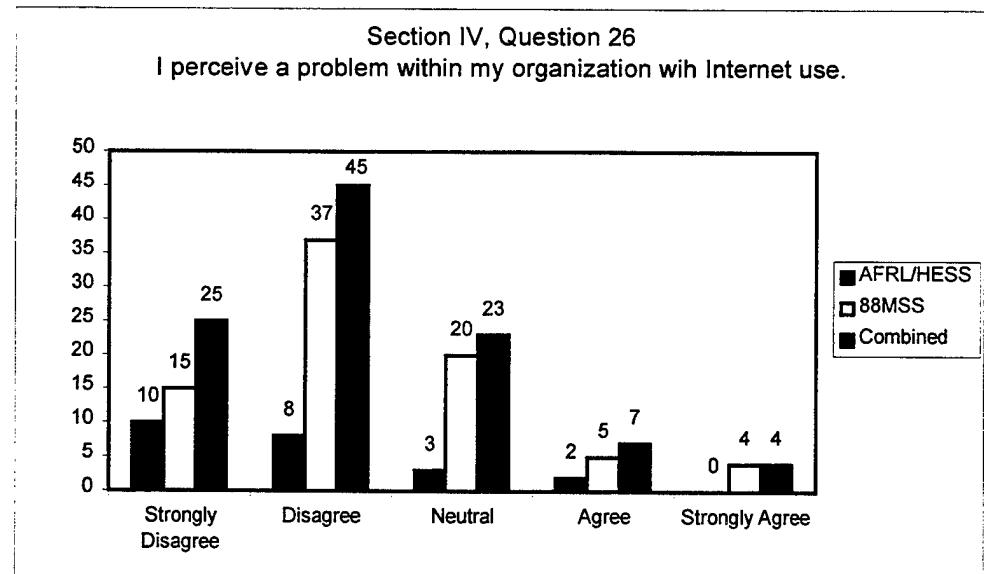
Figure 25: I perceive a problem within my organization with Internet use.

Figure 25 shows that of the 104 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 15 (15 percent) strongly disagreed that there was a problem of

Internet misuse within their organization, 37 (36 percent) disagreed that there was a

problem of Internet misuse within their organization, 20 (19 percent) were undecided

(neutral) on whether or not there was a problem of Internet misuse within their

organization, 5 (5 percent) agreed that there is a problem of Internet misuse within their organization, 4 (4 percent) strongly agreed that there was a problem of Internet misuse within their organization,

Figure 25 also shows that of the survey participants from AFRL/HESS, 18 (78 percent) strongly disagreed or disagreed that there was a problem of Internet misuse within their organization, 3 (13 percent) were undecided (neutral) on whether or not there was a problem of Internet misuse within their organization, 2 (9 percent) agreed or strongly agreed that there was a problem of Internet misuse within their organization.

Figure 25 also shows as well that of the survey participants from the 88 Mission Support Squadron, 52 (65 percent) strongly disagreed or disagreed that there was a problem of Internet misuse within their organization, 20 (25 percent) were undecided (neutral) on whether or not there was a problem of Internet misuse within their organization, 9 (11 percent) agreed or strongly agreed that there was a problem of Internet misuse within their organization.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 2.23. Considering the combined median and mode score was 2, this indicates that the survey participants disagreed that there was a problem of Internet misuse within their organization.

Section IV, Question 27
Access to the Internet has made me more productive at work.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	1	4%	2	2%	3	3%
Disagree	0	0%	6	7%	6	6%
Neutral	1	4%	11	14%	12	12%
Agree	12	52%	42	52%	54	52%
Strongly Agree	9	39%	20	25%	29	28%
Total	23	100%	81	100%	104	100%

	AFRL/HESS	88MSS	Combined
Mean	4.22	3.89	3.96
Median	4	4	4
Mode	4	4	4
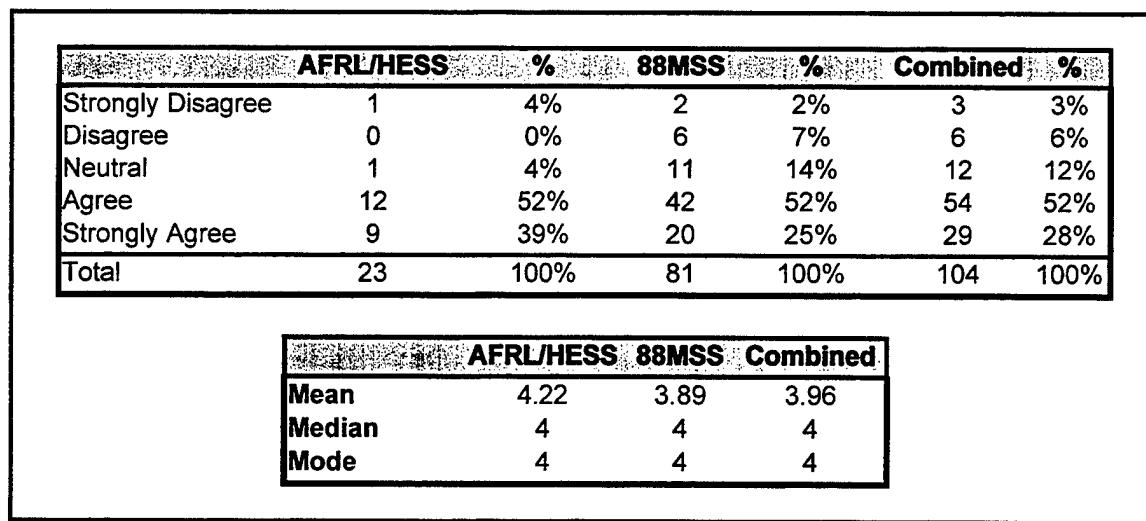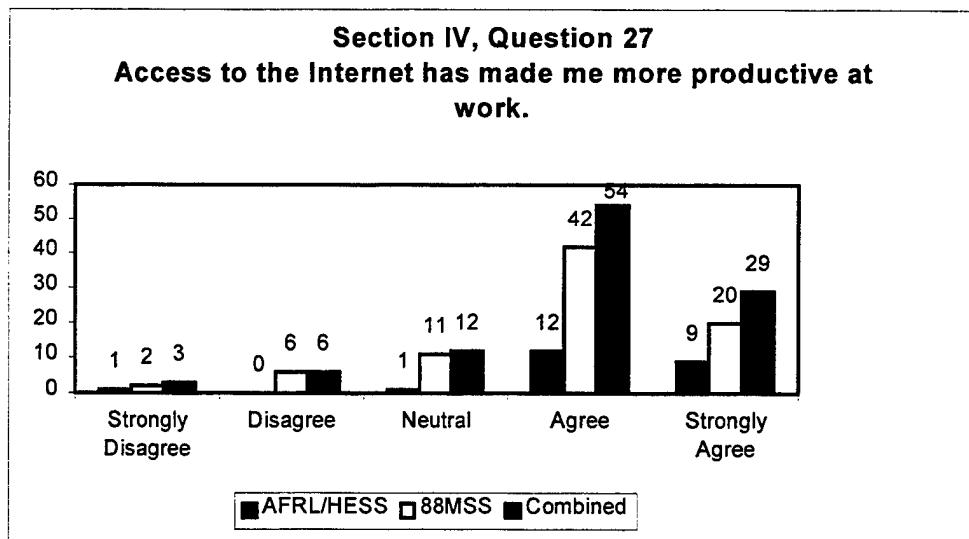
Figure 26: Access to the Internet has made me more productive.

Figure 26 shows that of the 104 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 3 (3 percent) strongly disagreed that access to the Internet had

made them more productive while at work, 6 (6 percent) disagreed that access to the

Internet had made them more productive while at work, 12 (12 percent) were undecided

(neutral) on whether or not access to the Internet had made them more productive while at work, 54 (52 percent) agreed that access to the Internet had made them more productive while at work, and 29 (28 percent) strongly agreed that access to the Internet had made them more productive while at work.

Figure 26 also shows that of the survey participants from AFRL/HESS, 1 (4 percent) strongly disagreed or disagreed that access to the Internet had made them more productive while at work, 1 (4 percent) were undecided (neutral) on whether or not having Internet access at work had made them more productive, and 21 (91 percent) agreed or strongly agreed that access to the Internet had made them more productive while at work.

Figure 26 also shows as well that of the survey participants from the 88 Mission Support Squadron, 8 (9 percent) strongly disagree or disagree that access to the Internet had made them more productive while at work, 11 (14 percent) are undecided (neutral) on whether or not having Internet access at work had made them more productive, and 62 (77 percent) agree or strongly agree that access to the Internet had made them more productive while at work.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 3.96. Considering the combined median and mode score was 4, this indicates that the survey participants agreed that having Internet access while at work had made them more productive.

Section IV, Question 28
Having access to the Internet has negatively impacted my efficiency in my job.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	18	78%	53	65%	71	68%
Disagree	5	22%	19	23%	24	23%
Neutral	0	0%	6	7%	6	6%
Agree	0	0%	2	2%	2	2%
Strongly Agree	0	0%	1	1%	1	1%
Total	23	100%	81	100%	104	100%

	AFRL/HESS	88MSS	Combined
Mean	1.22	1.51	1.44
Median	1	1	1
Mode	1	1	1

Figure 27: Having access to the Internet has negatively impacted my efficiency in my job.

Figure 27 shows that of the 104 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 71 (68 percent) strongly disagreed that having Internet access

had negatively impacted their job efficiency, 24 (23 percent) disagreed that having Internet

access had negatively impacted their job efficiency, 6 (6 percent) were undecided (neutral)

on whether or not having Internet access had negatively impacted their job efficiency, 2 (2 percent) agreed that having Internet access had negatively impacted their job efficiency, and 1 (1percent) strongly agreed that having Internet access had negatively impacted his or her job efficiency.

Figure 27 also shows that of the survey participants from AFRL/HESS, 23 (100 percent) strongly disagreed or disagreed that having Internet access had negatively impacted their job efficiency, and 0 (0 percent) were undecided, agreed, or strongly agreed that having Internet access had negatively impacted their job efficiency.

Figure 27 also shows as well that of the survey participants from the 88 Mission Support Squadron, 72 (88 percent) strongly disagreed or disagreed that having Internet access had negatively impacted their job efficiency, 6 (7 percent) were undecided (neutral) on whether or not having Internet access had negatively impacted their job efficiency, 3 (3 percent) agreed or strongly agreed that having Internet access had negatively impacted their job efficiency.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 1.44. Considering the combined median and mode score was 1, this indicates that the survey participants strongly disagreed that having Internet access had negatively impacted their job efficiency.

Section IV, Question 29
The personal use of the Internet by Air Force members affects the productivity of my organization.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	7	32%	10	12%	17	17%
Disagree	5	23%	35	43%	40	39%
Neutral	6	27%	21	26%	27	26%
Agree	3	14%	8	10%	11	11%
Strongly Agree	1	5%	7	9%	8	8%
Total	22	100%	81	100%	103	100%

	AFRL/HESS	88MSS	Combined
Mean	2.36	2.59	2.54
Median	2	2	2
Mode	1	2	2
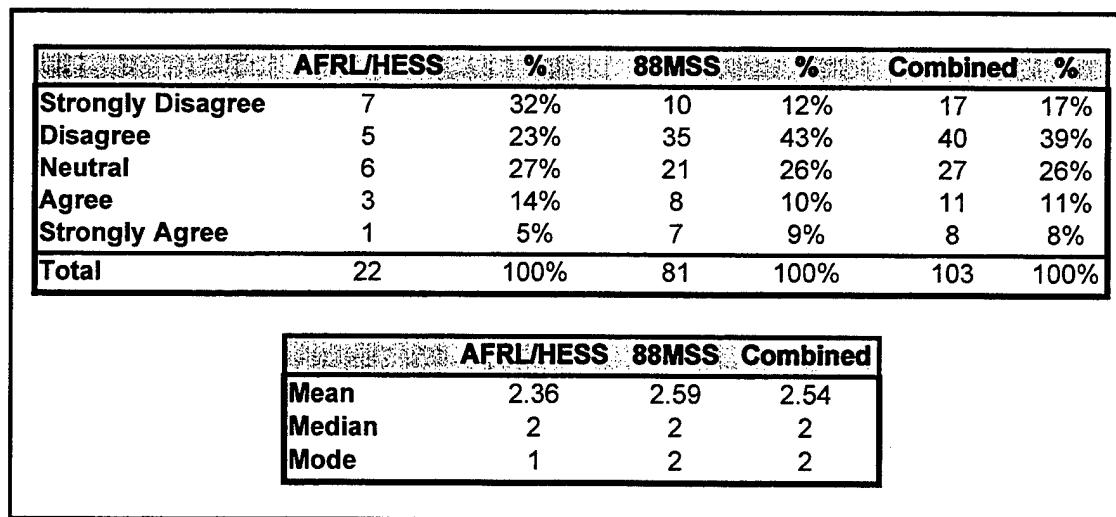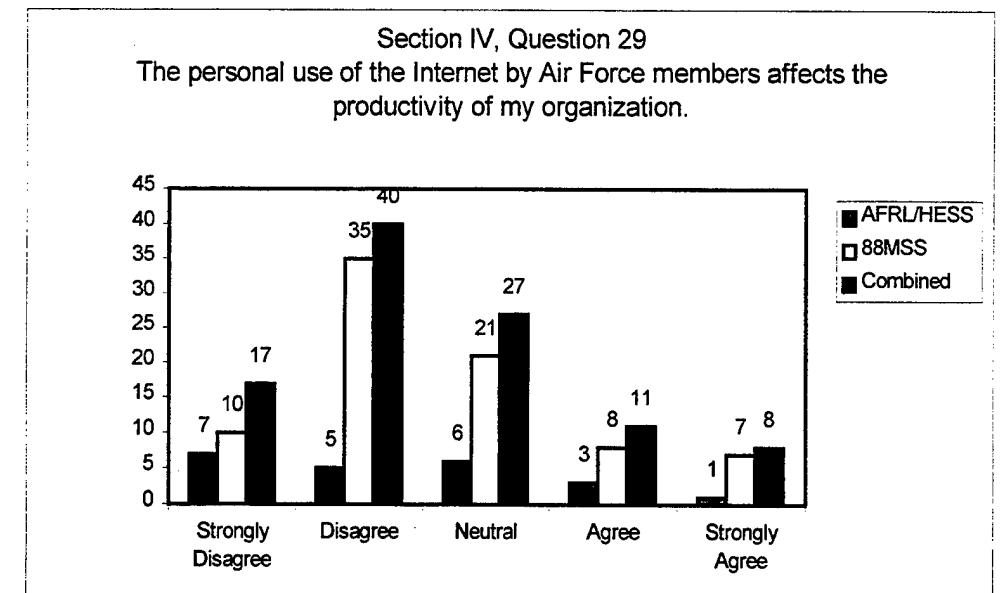
Figure 28: The personal use of the Internet by Air Force members affects the productivity of my organization.

Figure 28 shows that of the 103 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 17 (17 percent) strongly disagreed that the personal use of the

Internet affects the productivity level of the organization, 40 (39 percent) disagreed that the

personal use of the Internet affects the productivity level of the organization, 27 (26

percent) were undecided (neutral) on whether or not the personal use of the Internet affects

the productivity level of the organization, 11 (11 percent) agreed that the personal use of the Internet affects the productivity level of the organization, and 8 (8 percent) strongly agreed that the personal use of the Internet affects the productivity level of the organization.

Figure 28 also shows that of the survey participants from AFRL/HESS, 12 (55 percent) strongly disagreed or disagreed, that the personal use of the Internet affects the productivity level of the organization, 6 (27 percent) were undecided (neutral) on whether or not personal use of the Internet affects the productivity level of the organization, and 4 (19 percent) agreed or strongly agreed that the personal use of the Internet affects the productivity level of the organization.

Figure 28 also shows as well that of the survey participants from the 88 Mission Support Squadron, 45 (55 percent) strongly disagreed or disagreed that the personal use of the Internet affects the productivity level of the organization, 21 (26 percent) were undecided (neutral) on whether or not personal use of the Internet affects the productivity level of the organization, and 15 (19 percent) agreed or strongly agreed that the personal use of the Internet affects the productivity level of the organization.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 2.54. Considering the combined median and mode score was 2, this indicates that the survey participants disagreed that the personal use of the Internet affects the productivity level of the organization.

Section IV, Question 30
The misuse of the Internet by Air Force personnel outweighs the benefit and productivity the Internet provides.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	11	50%	21	26%	32	31%
Disagree	6	27%	19	24%	25	25%
Neutral	1	5%	26	33%	27	26%
Agree	3	14%	9	11%	12	12%
Strongly Agree	1	5%	5	6%	6	6%
Total	22	100%	80	100%	102	100%

	AFRL/HESS	88MSS	Combined
Mean	1.95	2.48	2.34
Median	1	3	2
Mode	1	3	2
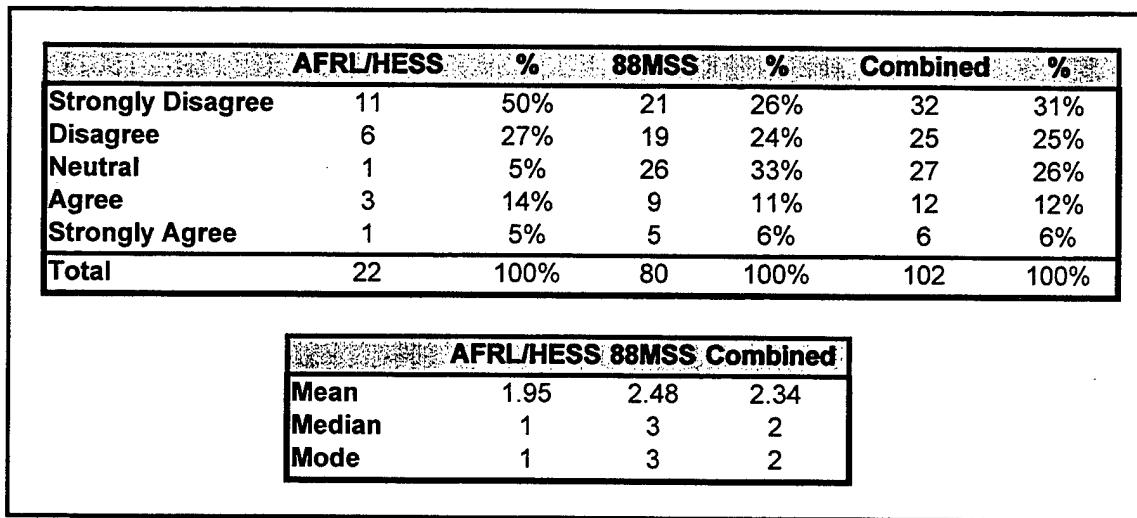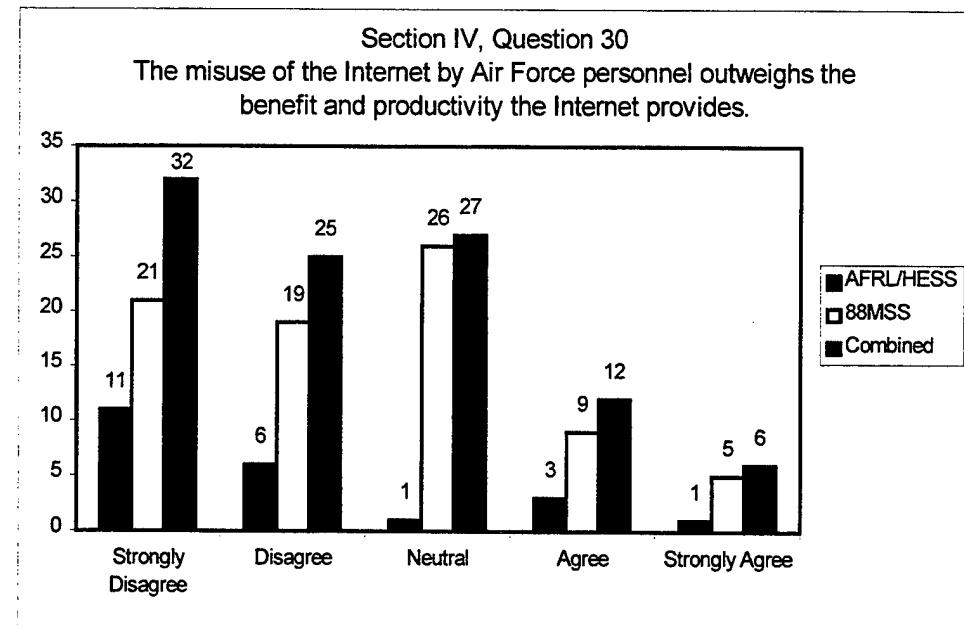
Figure 29: The misuse of the Internet by Air Force personnel outweighs the benefits and productivity the Internet provides.

Figure 29 shows that of the 102 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 32 (31 percent) strongly disagreed that the misuse of the

Internet outweighs the benefits and productivity that the Internet provides, 25 (25 percent)

disagreed that the misuse of the Internet outweighs the benefits and productivity that the

Internet provides, 27 (26 percent) were undecided (neutral) on whether or not misuse of the Internet outweighs the benefits and productivity that the Internet provides, 12 (12 percent) agreed that the misuse of the Internet outweighs the benefits and productivity that the Internet provides, and 6 (6 percent) strongly agreed that the misuse of the Internet outweighs the benefits and productivity that the Internet provides.

Figure 29 also shows that of the survey participants from AFRL/HESS, 17 (77 percent) strongly disagreed or disagreed that the misuse of the Internet outweighs the benefits and productivity that the Internet provides, 1 (5 percent) was undecided (neutral) on whether or not misuse of the Internet outweighs the benefits and productivity that the Internet provides, and 4 (19 percent) agreed or strongly agreed that the misuse of the Internet outweighs the benefits and productivity that the Internet provides.

Figure 29 also shows as well, that of the survey participants from the 88 Mission Support Squadron, 40 (50 percent) strongly disagreed or disagreed that the misuse of the Internet outweighs the benefits and productivity that the Internet provides, 26 (33 percent) were undecided (neutral) on whether or not the misuse of the Internet outweighs the benefits and productivity that the Internet provides, and 14 (17 percent) agreed or strongly agreed that the misuse of the Internet outweighs the benefit and productivity that the Internet provides.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 2.34. Considering the combined median and mode score was 2, this indicates that the survey participants disagreed that the misuse of the Internet by Air Force personnel outweighs the benefits and productivity the Internet provides.

Section IV, Question 31
The Internet increases my organization's productivity.
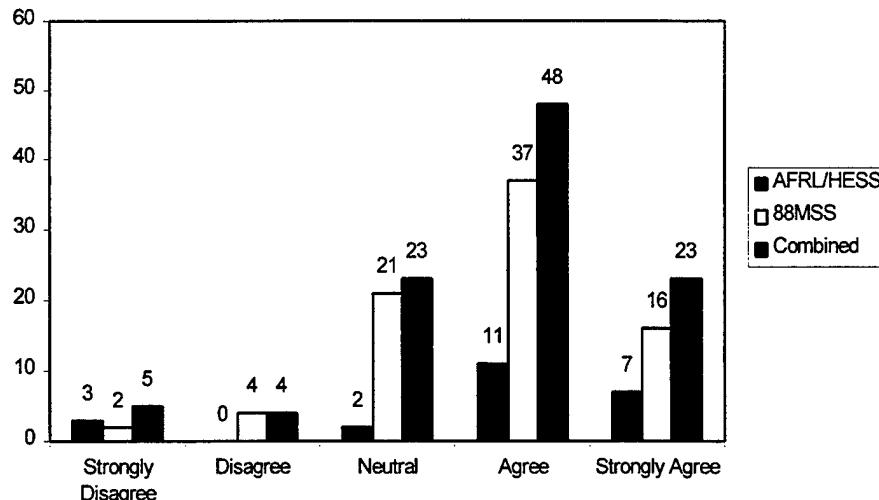
	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	3	13%	2	3%	5	5%
Disagree	0	0%	4	5%	4	4%
Neutral	2	9%	21	26%	23	22%
Agree	11	48%	37	46%	48	47%
Strongly Agree	7	30%	16	20%	23	22%
Total	23	100%	80	100%	103	100%

	AFRL/HESS	88MSS	Combined
Mean	3.83	3.76	3.78
Median	4	4	4
Mode	4	4	4

**Figure 30: The Internet increases my organization's productivity.**

Figure 30 shows that of the 103 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 5 (5 percent) strongly disagreed that the Internet increases the

organization's productivity, 4 (4 percent) disagreed that the Internet increases the

organization's productivity, 23 (22 percent) were undecided on whether or not the Internet increases the organization's productivity, 48 (47 percent) agreed that the Internet increases the organization's productivity, 23 (22 percent) strongly agreed that the Internet increases the organization's productivity.

Figure 30 also shows that of the survey participants from AFRL.HESS, 3 (13 percent) strongly disagreed or disagreed that the Internet increases the organization's productivity, 2 (9 percent) were undecided (neutral) on whether or not the Internet increases the organization's productivity, 18 (78 percent) agreed or strongly agreed that the Internet increases the organization's productivity.

Figure 30 also shows as well, that of the survey participants from the 88 Mission Support Squadron, 6 (8 percent) strongly disagreed or disagreed that the Internet increases the organization's productivity, 21 (26 percent) were undecided (neutral) on whether or not the Internet increases the organization's productivity, 53 (66 percent) agreed or strongly agreed that the Internet increases the organization's productivity.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 3.78. Considering the combined median and mode score was 4, this indicates that the survey participants agreed that the Internet increases the organization's productivity level.

Section IV, Question 32
Do you believe that the personal use of the Internet at work is out of control?
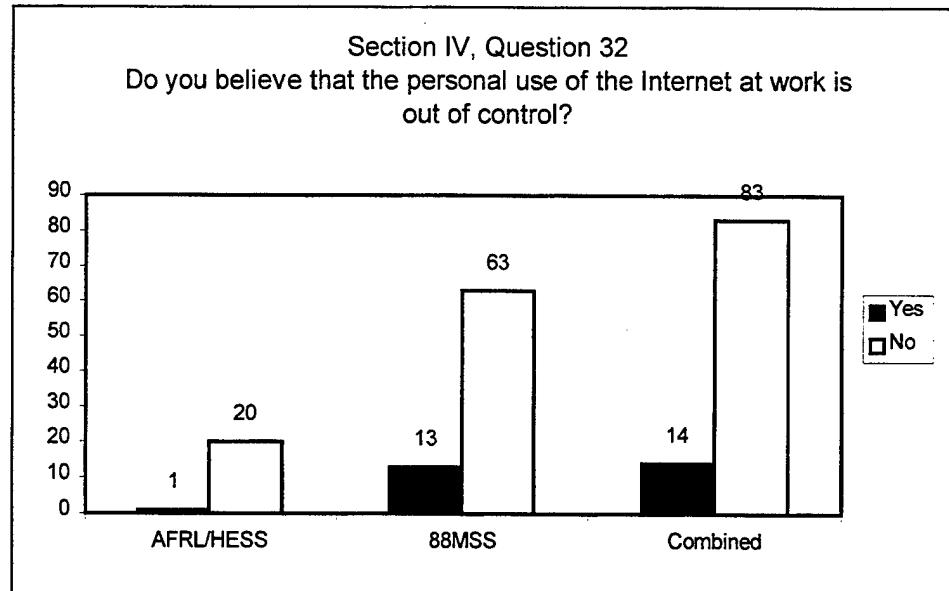
	AFRL/HESS	%	88MSS	%	Combined	%
Yes	1	5%	13	17%	13	13%
No	20	95%	63	83%	84	87%
Total	21	100%	76	100%	97	100%

Figure 31: Do you believe that the personal use of the Internet at work is out of control?

Figure 31 shows that of the 97 survey participants from AFRL/HESS and the 88 Mission Support Squadron, 13 (17 percent) believed that the personal use of the Internet at work is out of control and 64 (83 percent) did not believe that the personal use of the Internet at work is out of control. Figure 29 also shows that the survey participants of AFRL/HESS and the 88 Mission Support Squadron overall believed that the personal use of the Internet at work is not out of control.

Section IV, Question 33
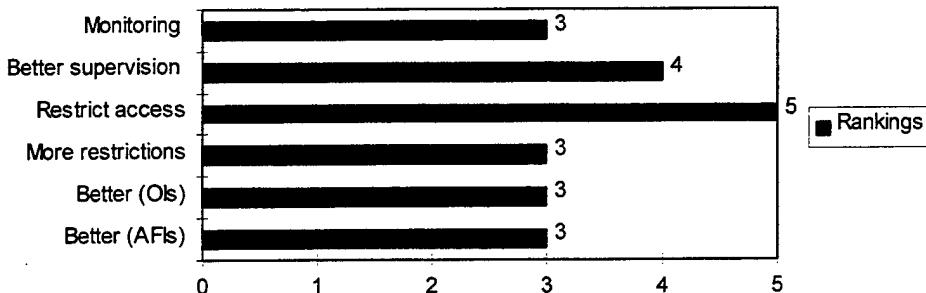
Rankings	Mean	Median	Mode
Monitoring	3	2	1
Better Supervision	4	4	4
Restrict Access	5	6	6
More Restrictions	3	3	5
Better (OIs)	3	3	1
Better (AFIs)	3	3	2

Figure 32: If unofficial use of the Internet is out of control, what do you believe is the best solution to correcting the misuse of the Internet within the Air Force?

Figure 32 shows the survey participants who agreed that there is a problem with Internet misuse within the squadrons from AFRL/HESS and the 88 Mission Support. The survey participates were asked to rank in order the choices above on what they believed was the best way to deal with the Internet misuse. The survey participants from AFRL/HESS and the 88 Mission Support Squadron rank-ordered the choices one through six, one being the most important. The survey participants ranked the choices in the following order: 1. Restrict complete access to the Internet during duty hours, 2. Better supervision of personnel during duty hours, number 3 through 6 were voted equally, 3. Monitoring Air Force personnel activities on the Internet, more restrictions on the Internet

browsing during the duty hours, 5. Better policy guidance (Air Force Instructions), and 6. Better organizational policy guidance (Organizational Instructions).

Figure 32 shows that the survey participants believed that there is a problem with Internet misuse within their squadron. They chose to restrict access to the Internet during duty hours to eliminate the misuse of the Internet.

Section VII: The Effects of Internet Misuse on Productivity

Section VII was designed to investigate the subordinate's Internet use and determine if the supervisors believed that the subordinates were misusing the Internet while at work. The results are illustrated below.

Table 9: Which of the following purposes of information gathering or browsing do you think your subordinates use while at work? (AFRL/HESS)

Section VII, Question 34	AFRL/HESS						
	Supervisor				Subordinate		
	Yes	%	No	%	Yes	%	No	%
News Related Info	1	33%	0	0%	0	0%	1	17%
AFPC Homepage	0	0%	1	14%	1	25%	0	0%
Searching for Issues	1	33%	0	0%	1	25%	0	0%
Posting Info on the Web	0	0%	1	14%	1	25%	0	0%
Browsing the Internet	1	33%	0	0%	1	25%	0	0%
Checking Stocks	0	0%	1	14%	0	0%	1	17%
Sports scores	0	0%	1	14%	0	0%	1	17%
Playing games	0	0%	1	14%	0	0%	1	17%
Personal E-Mail	0	0%	1	14%	0	0%	1	17%
Chat rooms	0	0%	1	14%	0	0%	1	17%
New group	0	0%	1	14%	0	0%	1	17%
Sports groups	0	0%	1	14%	0	0%	1	17%
Total	3	100%	7	100%	4	100%	6	100%

Table 9 shows the Internet services that are used by the supervisors and which site the supervisors believed the subordinates were using while at work. The supervisors from AFRL/HESS spent time checking the Internet for the new related information, searching for work related issues, and browsing the Internet through the search engines (Yahoo, Web-Crawler). The supervisors believed that their subordinates spent time checking the Air Force Personnel Center's Homepage for assignment information, searching for work related issues, posting information on a local home-page, and browsing the Internet through search engines (Yahoo or Web-Crawler).

Table 9 also shows that the supervisors believed that their subordinates were using the Internet for work related and useful sites that will make them more productive.

Table 10: Which of the following purposes of information gathering or browsing do you think your subordinates use while at work? (88 MSS)

	88 MSS							
	Supervisor				Subordinate			
	Yes	%	No	%	Yes	%	No	%
News Related Info	10	18%	9	7%	13	13%	7	7%
AFPC Homepage	11	20%	8	6%	17	17%	3	3%
Searching for Issues	17	31%	2	1%	18	17%	2	2%
Posting Info on the Web	4	7%	15	11%	16	16%	4	4%
Browsing the Internet	7	13%	12	9%	13	13%	7	7%
Checking Stocks	1	2%	18	13%	3	3%	17	18%
Sports scores	0	0%	19	14%	3	3%	17	18%
Playing games	1	2%	18	13%	7	7%	13	13%
Personal E-Mail	4	7%	15	11%	4	4%	16	16%
Chat rooms	0	0%	19	14%	9	9%	11	11%
New group	0	0%	19	14%	2	2%	18	19%
Sports groups	0	0%	19	14%	4	4%	16	16%
Total	55	100%	135	100%	103	100%	97	100%

Table 10 shows the Internet services that are used by the supervisors and which site the supervisors believed their subordinates were using while at work. The supervisors from the 88 Mission Support Squadron spent their time using the Internet for checking new related information, checking the Air Force Personnel Center's Homepage for assignment information, browsing the Internet for information through search engines (Yahoo or Web-Crawler), searching the Internet for work related issues and using the Internet for E-Mail.

The supervisors believed that their subordinates were using the Internet for checking news related information, AFPC Homepage, searching for work related issues, posting information to a local home-page, checking stocks, sport's scores, playing games, and chat rooms.

Table 10 also shows that the supervisors of the 88 Mission Support Squadron believed that their subordinates were using the Internet for work related issues, but they also believed that they were using the Internet for personal use while at work.

Section VII, Question 35 (AFRL/88MSS)
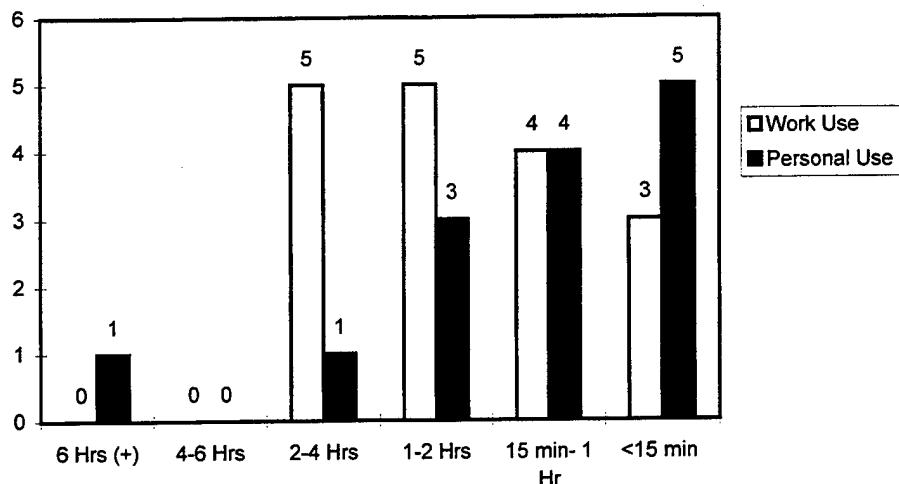
AFRL/88 MSS Combined				
	Work Use	%	Personal Use	%
6 hours (+)	0	0%	1	7%
4 - 6 hours	0	0%	0	0%
2- 4 hours	5	29%	1	7%
1 - 2 hours	5	29%	3	21%
15 min – 2 hrs	4	24%	4	29%
<15 min	3	18%	5	38%
Total	17	100%	14	100%

AFRL/88MSS	Work Use	Personal Use
Mean	4	5
Median	4	5
Mode	4	6

Figure 33: How much time during the duty day do you believe your subordinates are spending on the Internet. (AFRL/88 MSS Combined)

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Figure 33 shows that the supervisors from AFRL/HESS and the 88 Mission

Support Squadron who responded to this question, believed that their subordinates spent a

greater amount of time on the Internet for work purposes then on the Internet for personal

use.

Figure 33 also shows that the mean, median, and mode scores for Internet work use

were 4, which indicates that the supervisors believe that their subordinates spent between

one - two hours on the Internet for work purposes. Then, the mean, median, and mode

scores for personal use of the Internet were 5, which indicates that the supervisors believed

that their subordinates spent between 15 minutes and one hour for personal use of the

Internet.

Section VII, Question 36 (AFRI/88 MSS)

		AFRL/ 88 MSS Combined		
	Work Use	%	Personal Use	%
6 hours (+)	0	0%	1	8%
4 - 6 hours	0	0%	0	0%
2- 4 hours	1	7%	0	0%
1 - 2 hours	4	27%	0	0%
15 min - 2 hrs	6	40%	5	38%
<15 min	4	27%	7	54%
Total	15	100%	13	100%

AFRL/88MSS	Work Use	Personal Use
Mean	5	5
Median	5	6
Mode	5	6
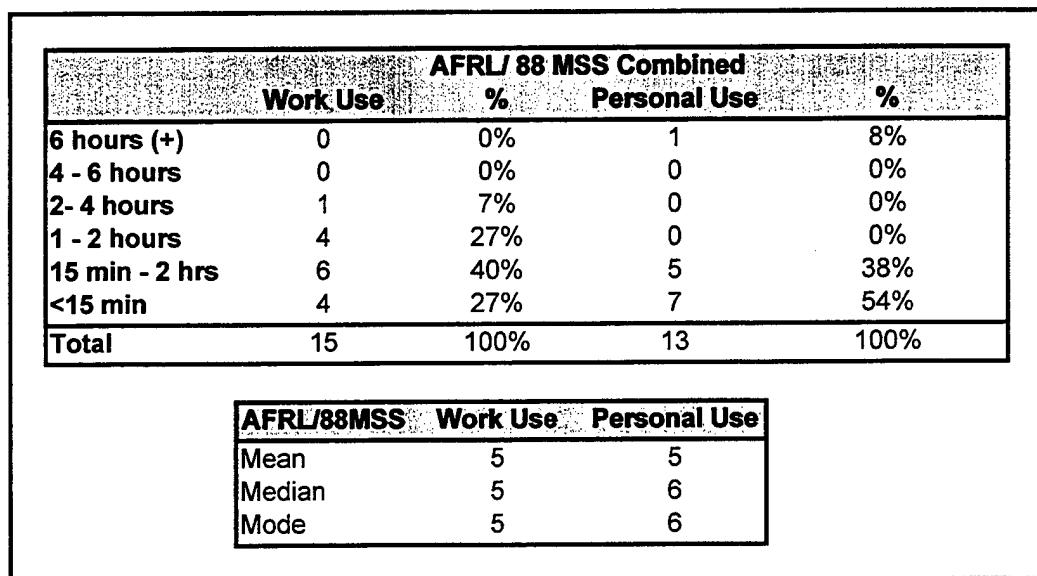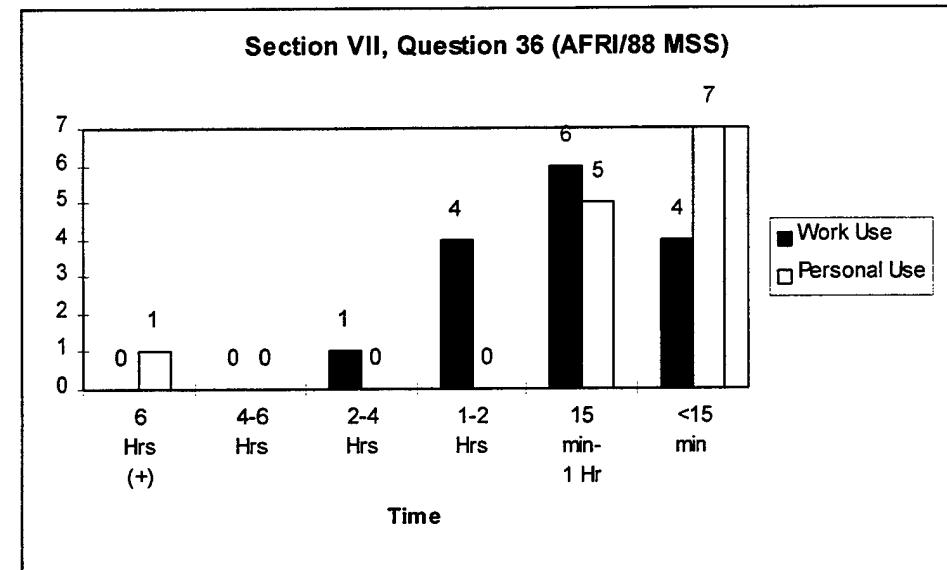
Figure 34: How much time during the duty day do you believe you spend for personal use on the Internet while at work. (AFRL/88 MSS Combined)

Figure 34 shows that the supervisors from AFRL/HESS and the 88 Mission

Support Squadron who responded to this question, believed that their subordinates were

spending an equal amount of time on the Internet for work purposes and for personal use.

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Figure 34 also shows that the mean, median, and mode scores for Internet work use were 5, which indicates that the supervisors believed that their subordinates spent between 15 minutes - one hour on the Internet for work purposes. Then the mean, median, and mode scores for personal use of the Internet were 5, 6, and 6, which indicates that the supervisors believed that their subordinates spent between 15 minutes and one hour for personal use of the Internet. Figure 31 also shows that the supervisors believed that their subordinates were spending more time on the Internet for personal use then for work purposes while at work.

Section VIII: The Effect of Internet Misuse on Productivity Survey

Section VIII was created to investigate the supervisor's beliefs on how useful the Internet was for them as well as their subordinates. This section asks the supervisors for information on productivity levels of their subordinates, whether the Internet access was crucial for their subordinates to complete their work, and if personal use of the Internet was a problem within their organization. The results of section VIII are illustrated below.

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Section VIII, Question 37
Internet access at my desk is essential in completing my work.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	0	0%	1	5%	1	5%
Disagree	0	0%	1	5%	1	5%
Neutral	0	0%	0	0%	0	0%
Agree	1	50%	9	45%	10	45%
Strongly Agree	1	50%	9	45%	10	45%
Total	2	100%	20	100%	22	100%

	AFRL/HESS	88MSS	Combined
Mean	4.50	4.20	4.23
Median	5	4	4
Mode	4	4	4
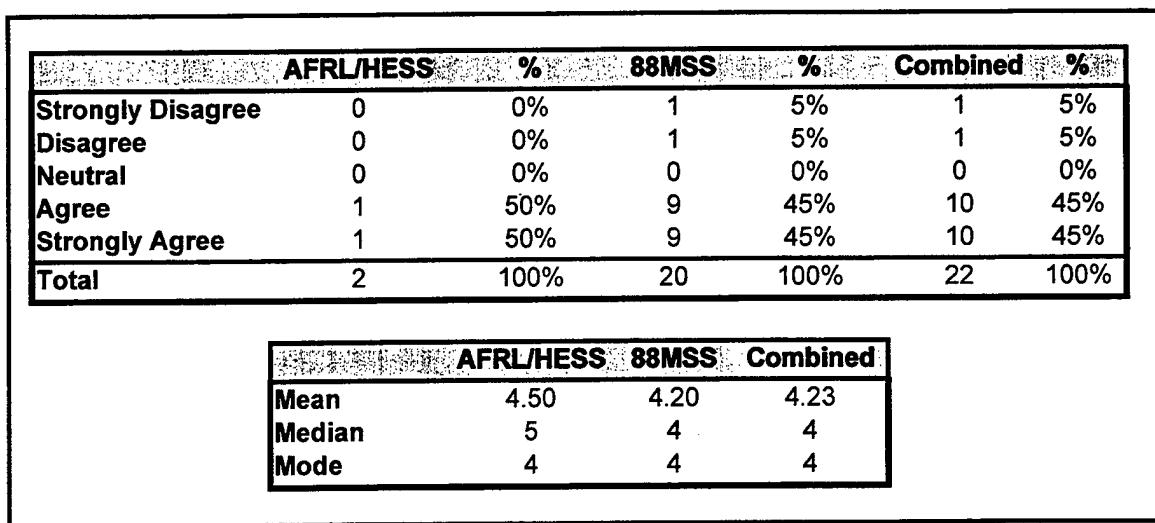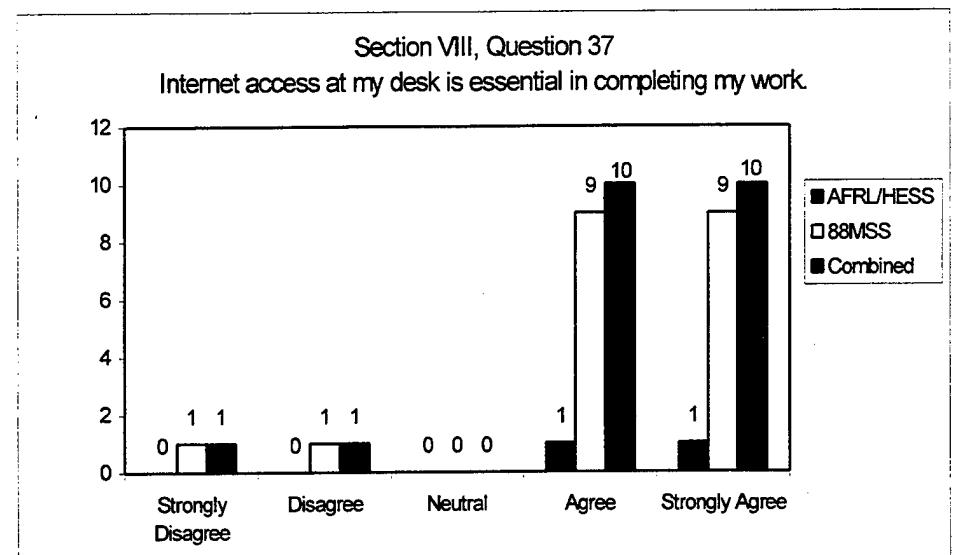
Figure 35: Internet access at my desk is essential in completing my work.

Figure 35 shows that of the 22 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 1 (5 percent) strongly disagreed that access to the Internet is

essential in completing their work, 1(5 percent) disagreed that access to the Internet is

essential in completing their work, 0 (0 percent) were undecided (neutral) on whether or

not that access to the Internet is essential in completing their work, 10 (45 percent) agreed

that access to the Internet is essential in completing their work, and 10 (45 percent) strongly agreed that access to the Internet is essential in completing their work.

Figure 35 also shows that of the survey participants from AFRL/HESS, 0 (0 percent) strongly disagreed, disagreed and were undecided that access to the Internet is essential in completing their work, 1 (50 percent) agreed that access to the Internet is essential in completing his or her work, and 1 (50 percent) strongly agreed that access to the Internet is essential in completing his or her work.

Figure 35 also shows as well that of the survey participants from the 88 Mission Support Squadron, 1 (5 percent) strongly disagreed that access to the Internet is essential in completing his or her work, 1 (5 percent) disagreed that access to the Internet is essential in completing his or her work, and 0 (0 percent) were undecided (neutral) on whether or not that access to the Internet is essential in completing his or her work, 9 (45 percent) agreed that access to the Internet is essential in completing their work, and 9 (45 percent) strongly agreed that access to the Internet is essential in completing their work.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 4.23. Considering the combined median and mode score was 4, this indicates that the survey participants agreed that access to the Internet on their desk is essential in completing their work

Section VIII, Question 38
My subordinates need Internet access to complete their work.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	0	0%	0	0%	0	0%
Disagree	0	0%	3	15%	3	14%
Neutral	0	0%	1	5%	1	5%
Agree	1	50%	10	50%	11	50%
Strongly Agree	1	50%	6	30%	7	32%
Total	2	100%	20	100%	22	100%

	AFRL/HESS	88MSS	Combined
Mean	4.50	3.95	4.00
Median	5	4	4
Mode	4	4	4
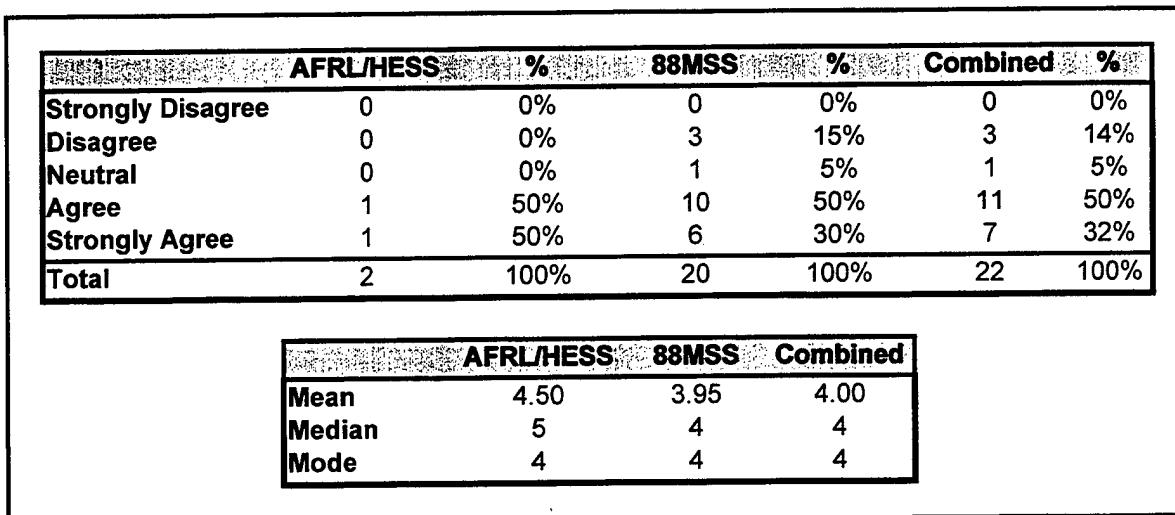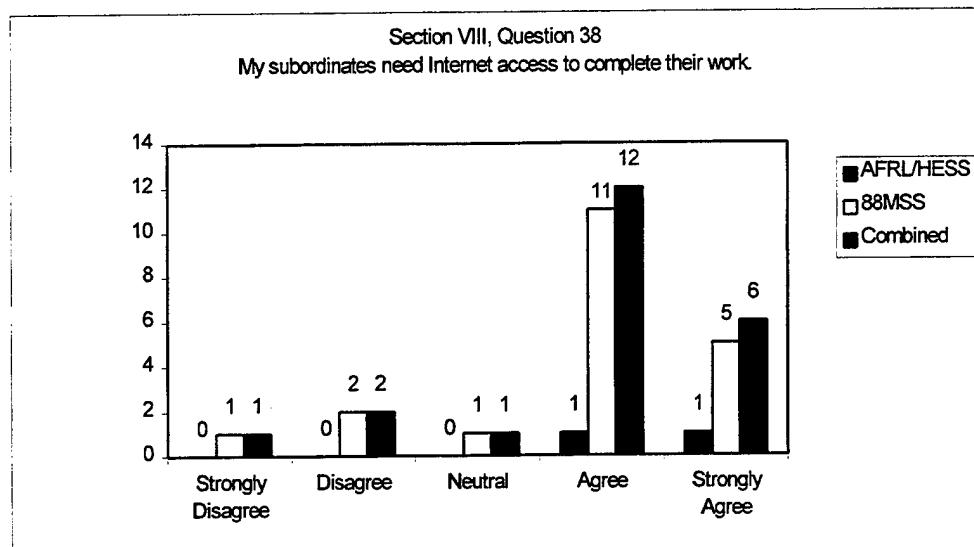
Figure 36: My subordinates need Internet access to complete their work.

Figure 36 shows that of the 22 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 1 (5 percent) strongly disagreed that his or her subordinates

need Internet access to complete their work, 2 (9 percent) disagreed that their subordinates

need Internet access to complete their work, 1 (5 percent) was undecided on whether or not

his or her subordinates need Internet access to complete their work, 12 (55 percent) agreed

that their subordinates need Internet access to complete their work, and 6 (27 percent) strongly agreed that their subordinates need Internet access to complete their work.

Figure 36 also shows that of the survey participants from AFRL/HESS, 0 (0 percent) strongly disagreed, disagreed, or were undecided that their subordinates need Internet access to complete their work, 2 (100 percent) agreed or strongly agreed that their subordinates need Internet access to complete their work.

Figure 36 also shows as well that of the survey participants from the 88 Mission Support Squadron, 3 (15 percent) strongly disagreed or disagreed that their subordinates need Internet access to complete their work, 1 (5 percent) was undecided on whether or not his or her subordinates need Internet access to complete their work, and 16 (80 percent) agreed or strongly agreed that their subordinates need Internet access to complete their work.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 4.23. Considering the combined median and mode score was 4, this indicates that the survey participants agreed that their subordinates need Internet access to complete their work.

Section VIII, Question 39
Using the Internet increases my subordinate's productivity level.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	0	0%	0	0%	0	0%
Disagree	0	0%	3	15%	3	14%
Neutral	0	0%	1	5%	1	5%
Agree	1	50%	10	50%	11	50%
Strongly Agree	1	50%	6	30%	7	32%
Total	2	100%	20	100%	22	100%

	AFRL/HESS	88MSS	Combined
Mean	4.50	3.95	4.00
Median	5	4	4
Mode	4	4	4
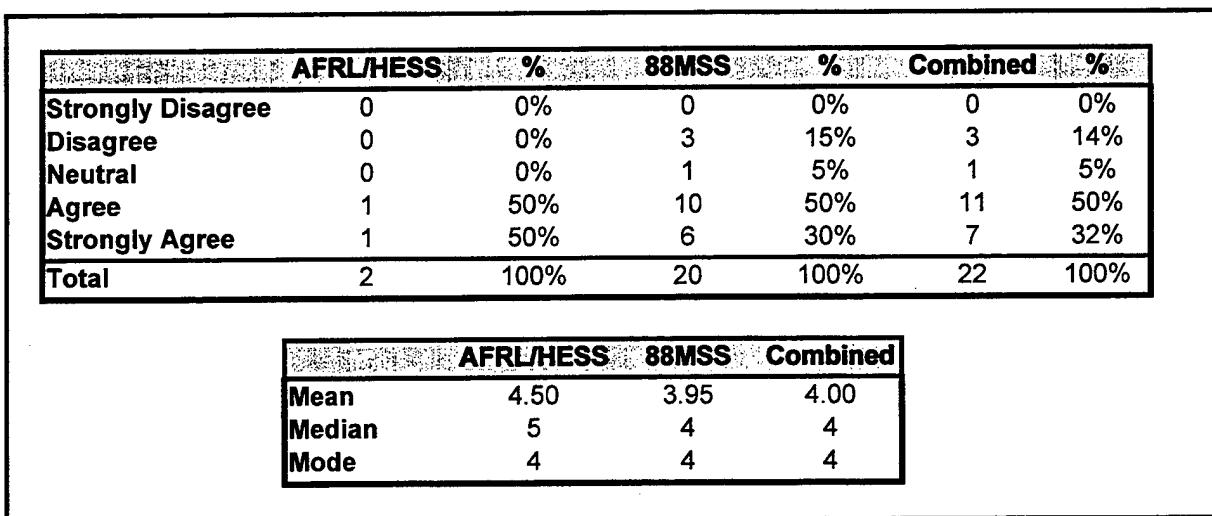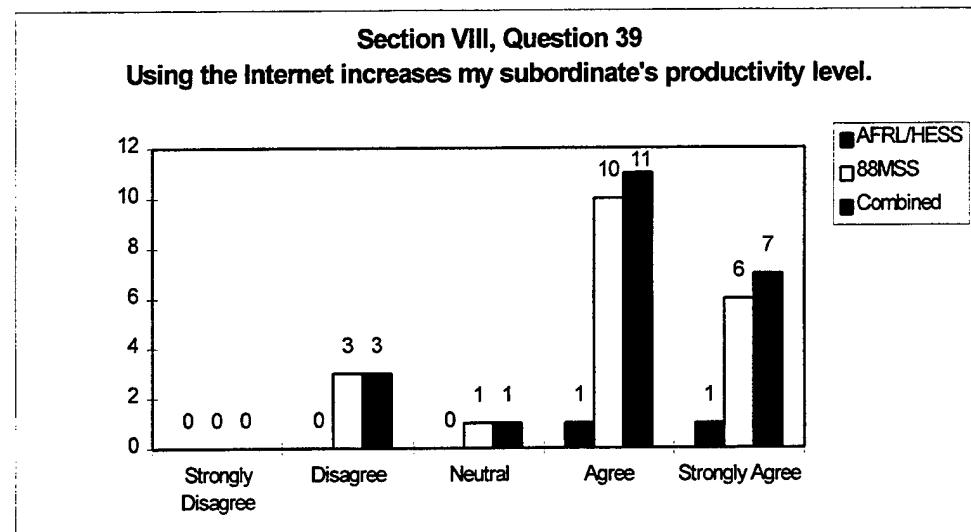
**Figure 37: Using the Internet increases my subordinate's productivity level.**

Figure 37 shows that of the 22 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 0 (0 percent) strongly disagreed that using the Internet

increases their subordinate's productivity level, 3 (14 percent) agreed that using the

Internet increases their subordinate's productivity level, 1 (5 percent) was undecided

(neutral) on whether or not using the Internet will increase his or her subordinate's

productivity level, 11 (50 percent) agreed that using the Internet increases their subordinate's productivity level, and 7 (32 percent) strongly agreed that using the Internet increases their subordinate's productivity level.

Figure 37 also shows that of the survey participants from AFRL/HESS, 0 (0 percent) strongly disagreed, disagreed, or were undecided on whether or not using the Internet increases their subordinate's productivity level, 2 (100 percent) agreed or strongly agreed that using the Internet increases their subordinate's productivity level.

Figure 37 also shows as well that of the survey participants from the 88 Mission Support Squadron, 3 (15 percent) strongly disagreed or disagreed that using the Internet increases their subordinate's productivity level, 1 (5 percent) was undecided (neutral) on whether or not using the Internet increases his or her subordinate's productivity level, and 16 (80 percent) agreed or strongly agreed that using the Internet increases their subordinate's productivity level.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 4.00. Considering the combined median and mode score was 4, this indicates that the survey participants agreed that using the Internet increases their subordinate's productivity level.

Section VIII, Question 40
In my opinion there is a problem with personal use of the
Internet within my organization.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	0	0%	0	0%	0	0%
Disagree	0	0%	3	15%	3	14%
Neutral	0	0%	1	5%	1	5%
Agree	1	50%	10	50%	11	50%
Strongly Agree	1	50%	6	30%	7	32%
Total	2	100%	20	100%	22	100%

	AFRL/HESS	88MSS	Combined
Mean	1.50	2.40	2.32
Median	2	2	2
Mode	2	2	2
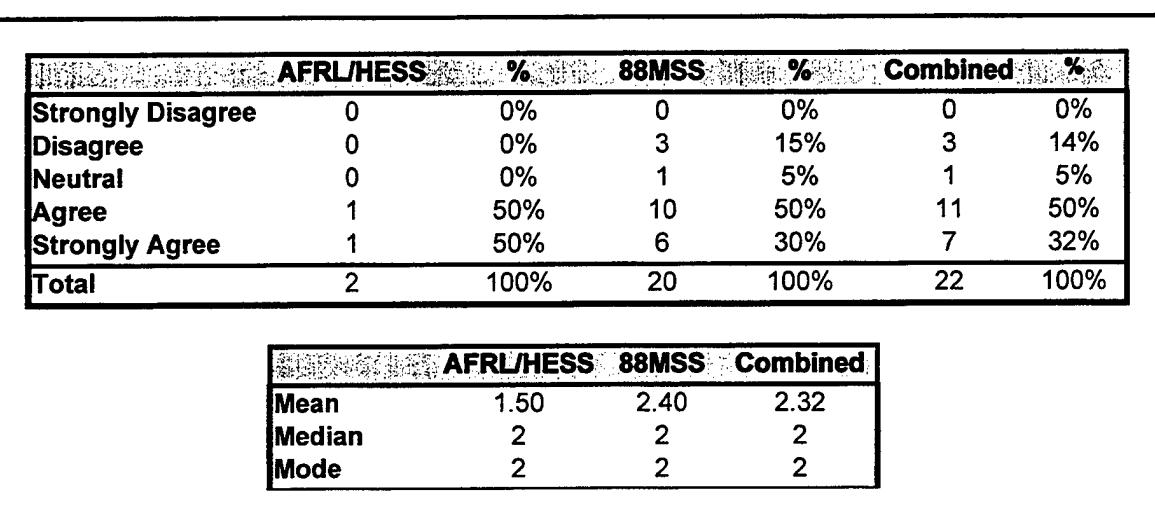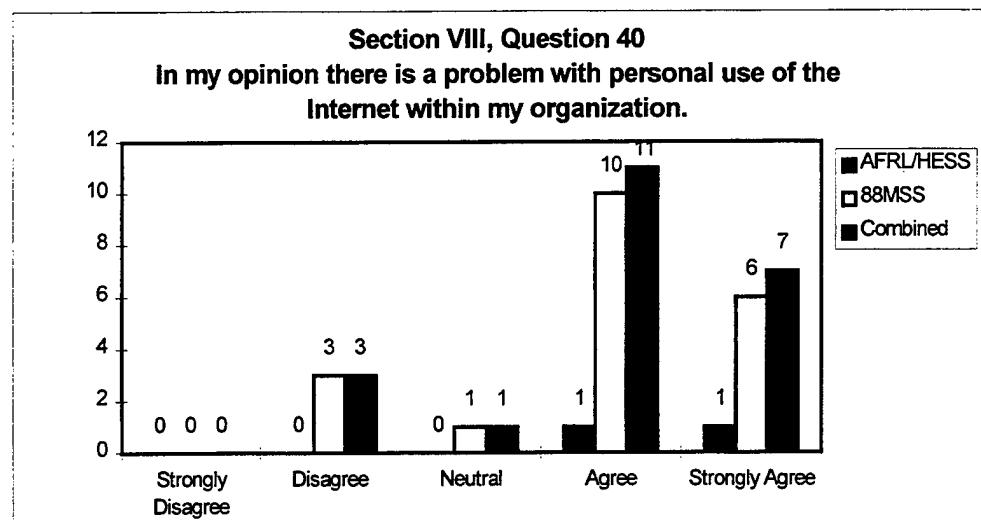
Figure 38: In my opinion there is a problem with personal use of the Internet within my organization.

Figure 38 shows that of the 22 survey participants from AFRL/HESS and the 88 Mission Support Squadron, 0 (0 percent) strongly disagreed that there is a problem with personal use of the Internet within their organization, 3 (14 percent) disagreed that there is a problem with personal use of the Internet within their organization, 1 (5 percent) was undecided (neutral) on whether or not there is a problem with personal use of the Internet

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within his or her organization, 11 (50 percent) agreed that there is a problem with personal use of the Internet within their organization, and 7 (32 percent) strongly agreed that there is a problem with personal use of the Internet within their organization.

Figure 38 also shows that of the survey participates from AFRL/HESS, where 0 (0 percent) strongly disagreed, disagreed or were undecided on whether or not there is a problem with personal use of the Internet within their organization, and 2 (100 percent) agreed or strongly agreed that there is a problem with personal use of the Internet within their organization.

Figure 38 also shows as well that of the survey participates from the 88 Mission Support Squadron, 3 (15 percent) strongly disagreed or disagreed that there is a problem with personal use of the Internet within their organization, 1 (5 percent) was undecided (neutral) on whether or not that there is a problem with personal use of the Internet within his or her organization, and 16 (80 percent) agreed or strongly agreed that there is a problem with personal use of the Internet within their organization.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 2.32. Considering the combined median and mode score was 2, this indicates that the survey participants disagreed that there is a problem with personal use of the Internet within their organization.

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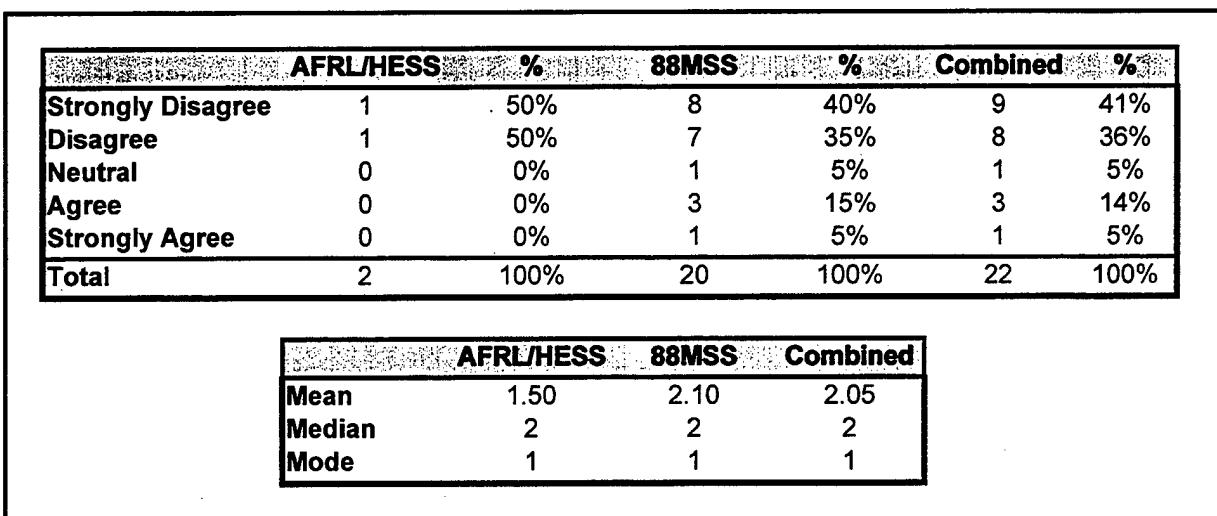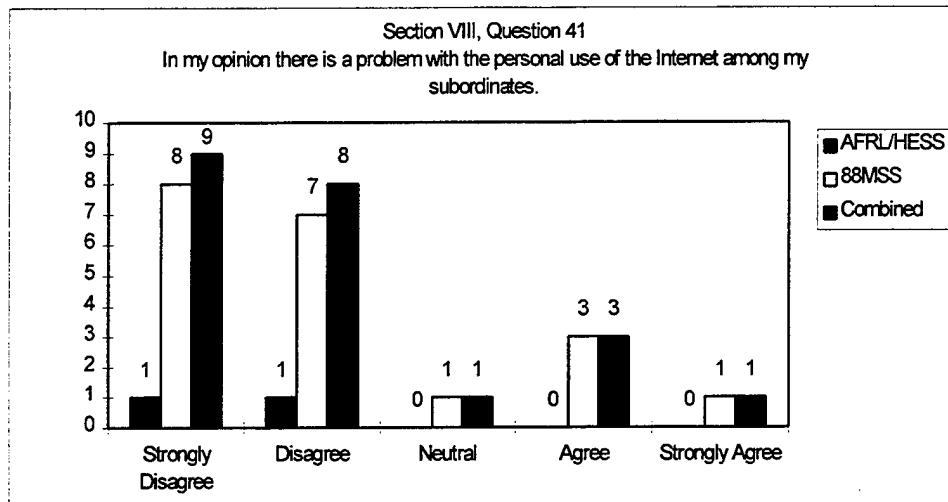
Figure 39: In my opinion there is a problem with the personal use of the Internet
among my subordinates.

Figure 39 shows that of the 22 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 9 (41 percent) strongly disagreed that there is a problem with

personal use of the Internet among their subordinates, 8 (36 percent) disagreed that there is

a problem with personal use of the Internet among their subordinates, 1 (5 percent) was

undecided (neutral) on whether or not that there is a problem with personal use of the

Internet among his or her subordinates, 3 (14 percent) agreed that there is a problem with personal use of the Internet among their subordinates, and 1 (5 percent) strongly agreed that there is a problem with personal use of the Internet among his or her subordinates.

Figure 39 also shows that of the survey participates from AFRL/HESS, 2 (100 percent) strongly disagreed or disagreed that there is a problem with personal use of the Internet among their subordinates, and 0 (percent) were neutral, agreed, or strongly agreed that there is a problem with personal use of the Internet among their subordinates.

Figure 39 also shows as well that of the survey participates from the 88 Mission Support Squadron, 15 (75 percent) strongly disagreed or disagreed that there is a problem with personal use of the Internet among their subordinates, 1 (5 percent) was undecided (neutral) on whether or not there is a problem with personal use of the Internet among his or her subordinates, and 4 (20 percent) agreed or strongly agreed that there is a problem with personal use of the Internet among their subordinates.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 2.05. Considering the combined median and mode score was 2, this indicates that the survey participants disagreed that there is a problem with personal use of the Internet among their subordinates.
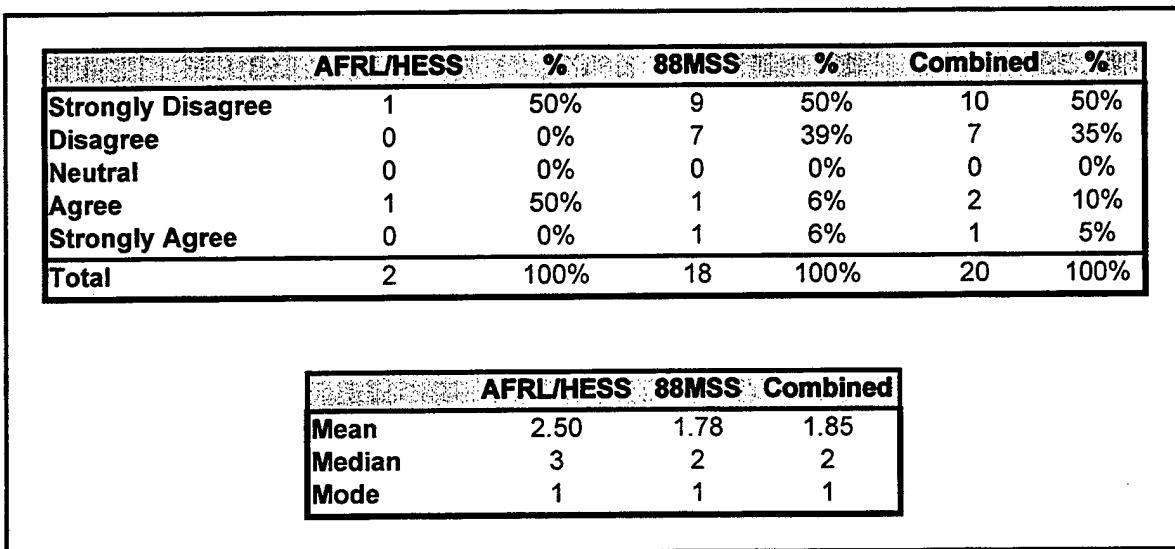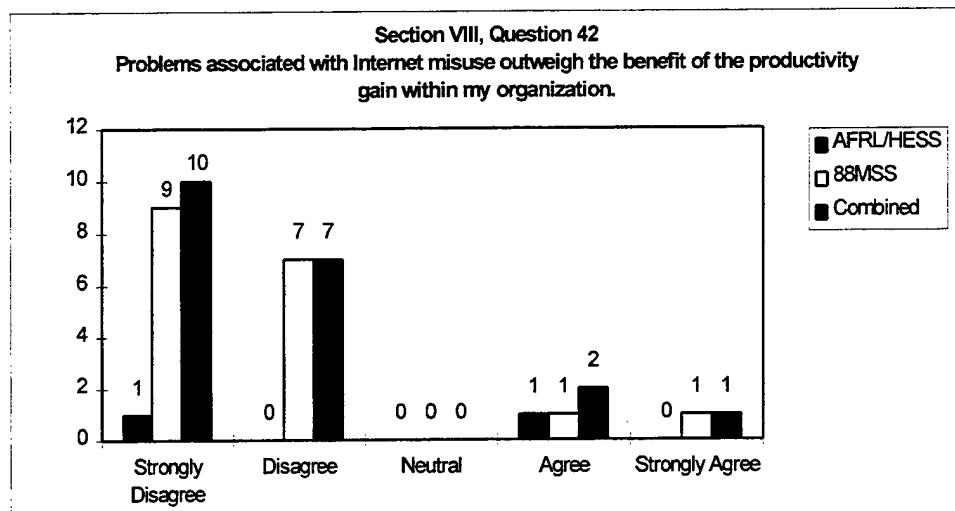
Figure 40: Problems associated with Internet misuse outweigh the benefits of the productivity gain within my organization.

Figure 40 shows that of the 20 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 10 (50 percent) strongly disagreed that the problems associated

with Internet misuse outweigh the benefits of the productivity gains within their

organization, 7 (35 percent) disagreed that the problems associated with Internet misuse

outweigh the benefits of the productivity gains within their organization, 0 (0 percent) were

undecided that the problems associated with Internet misuse outweigh the benefits of the productivity gains within their organization, 2 (10 percent) agreed that the problems associated with Internet misuse outweigh the benefits of the productivity gains within their organization, and 1 (5 percent) strongly agreed that the problems associated with Internet misuse outweigh the benefits of the productivity gains within his or her organization.

Figure 40 also shows that of the survey participates from AFRL/HESS, 1 (50 percent) strongly disagreed or agreed that the problems associated with Internet misuse outweigh the benefits of the productivity gains within their organization, 0 (0 percent) were undecided that the problems associated with Internet misuse outweigh the benefits of the productivity gains within their organization, 1 (50 percent) agreed that the problems associated with Internet misuse outweigh the benefits of the productivity gains within his or her organization, and 0 (0 percent) strongly agreed that the problems associated with Internet misuse outweigh the benefits of the productivity gains within their organization.

Figure 40 also shows as well that of the survey participates from the 88 Mission Support Squadron, 16 (89 percent) strongly disagreed or disagreed that the problems associated with Internet misuse outweigh the benefits of the productivity gains within their organization, 2 (12 percent) were undecided, agree or strongly agree that the problems associated with Internet misuse outweigh the benefits of the productivity gains within their organization.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron

was 1.85. Considering the combined median and mode score was 2, this indicates that the

survey participants disagreed that the problems associated with Internet misuse outweigh

the benefits of the productivity gains within their organization.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	0	0%	1	5%	1	5%
Disagree	0	0%	2	11%	2	10%
Neutral	0	0%	0	0%	0	0%
Agree	1	50%	10	53%	11	52%
Strongly Agree	1	50%	6	32%	7	33%
Total	2	100%	19	100%	21	100%

	AFRL/HESS	88MSS	Combined
Mean	4.50	3.95	4.22
Median	5	4	4
Mode	4	4	4
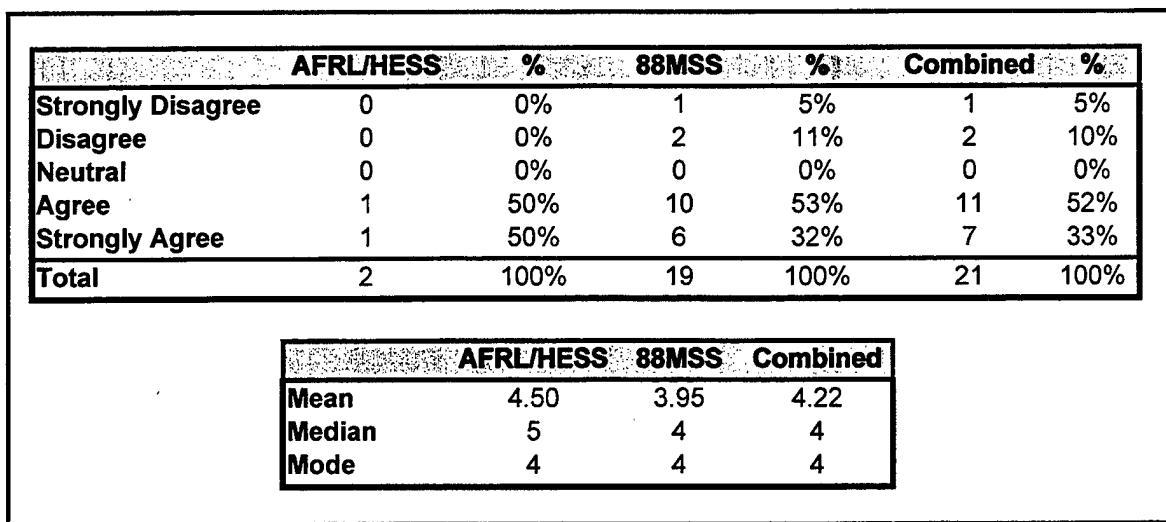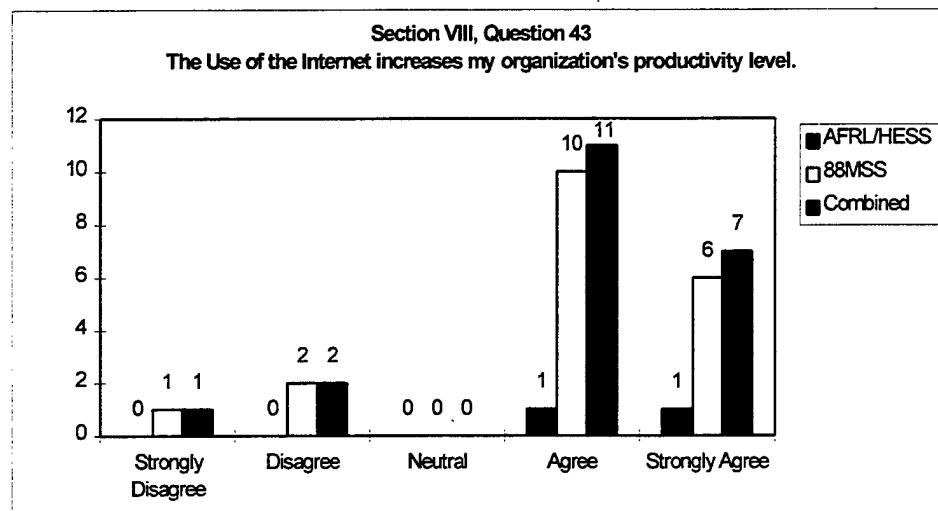
**Figure 41: The Use of the Internet increases my organization's productivity level.**

Figure 41 shows that of the 21 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 1 (5 percent) strongly agreed that the use of the Internet

increases his or her organization's productivity level, 2 (10 percent) disagreed that the use

of the Internet increases their organization's productivity level, 0 (0 percent) were

undecided that the use of the Internet increases their organization's productivity level, 11

(52 percent) agreed that the use of the Internet increases their organization's productivity

level, and 7 (33 percent) strongly agreed that the use of the Internet increases their

organization's productivity level.

Figure 41 also shows that of the survey participants from AFRL/HESS, 0 (0

percent) strongly disagreed, disagreed, or were undecided that the use of the Internet

increases their organization's productivity level, and 2 (100 percent) agreed or strongly

agreed that the use of the Internet increases their organization's productivity level.

Figure 41 also shows as well that of the survey participants from the 88 Mission

Support Squadron, 3 (15 percent) strongly disagreed or disagreed that the use of the

Internet increases their organization's productivity level, 0 (0 percent) were undecided that

the use of the Internet increases their organization's productivity level, and 16 (85 percent)

agreed or strongly agreed that the use of the Internet increases their organization's

productivity level.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron

was 4.22. Considering the combined median and mode score was 4, this indicates that the

survey participants agreed that the use of the Internet increases their organization's

productivity level.

Section VIII, Question 44
The Internet has increased the amount of time that my subordinates spend on the computer.

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	0	0%	1	5%	1	5%
Disagree	0	0%	5	26%	5	24%
Neutral	0	0%	1	5%	1	5%
Agree	2	100%	10	53%	12	57%
Strongly Agree	0	0%	2	11%	2	10%
Total	2	100%	19	100%	21	100%

	AFRL/HESS	88MSS	Combined
Mean	4.00	3.37	3.8
Median	4	4	4
Mode	4	4	4
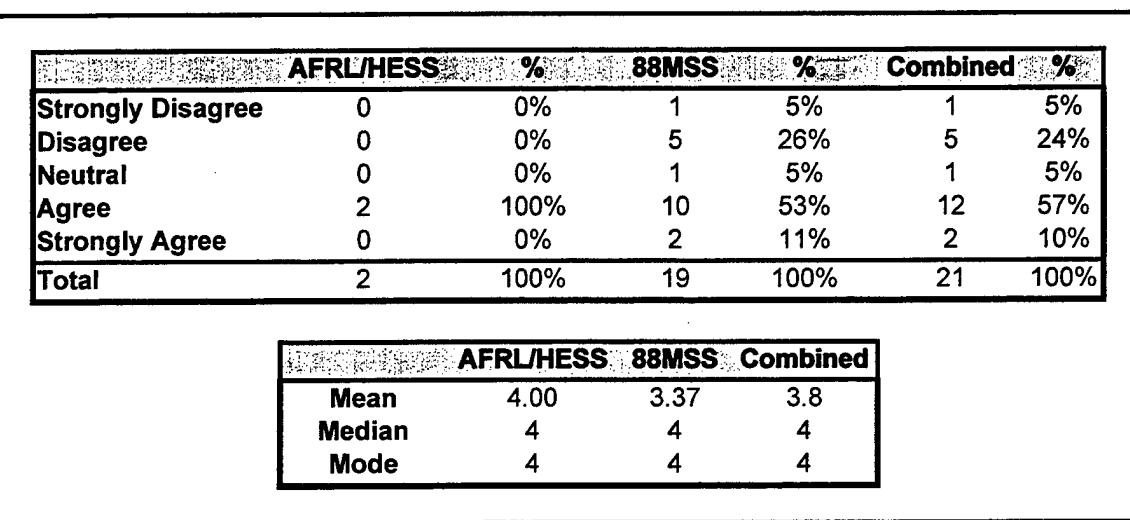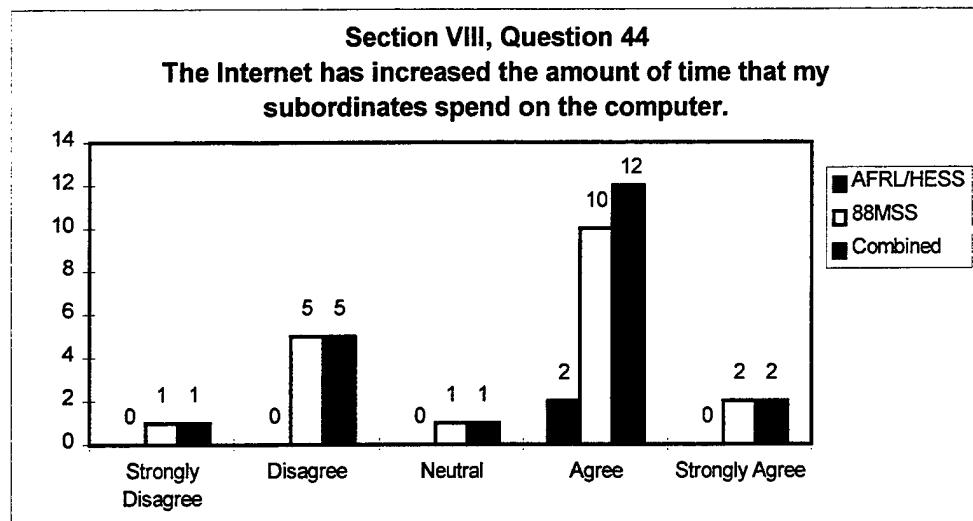
Figure 42: The Internet has increased the amount of time that my subordinates spend on the computer.

Figure 42 shows that of the 21 survey participants from AFRL/HESS and the 88 Mission Support Squadron, 1 (5 percent) strongly disagreed that the Internet had increased the amount of time his or her subordinates spent on the computer, 5 (24 percent) disagree that the Internet had increased the amount of time their subordinates spent on the computer, 1 (5 percent) is undecided (neutral) on whether or not the Internet had increased the amount of time his or her subordinates spent on the computer, 12 (57 percent) agreed that the

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Internet had increased the amount of time their subordinates spent on the computer, and 2 (10 percent) strongly agreed that the Internet had increased the amount of time their subordinates spent on the computer.

Figure 42 also shows that of the survey participants from AFRL/HESS, 0 (0 percent) strongly disagreed, disagreed, or were undecided that the Internet had increased the amount of time their subordinates spent on the computer, and 2 (100 percent) agreed or strongly agreed that the Internet had increased the amount of time their subordinates spent on the computer.

Figure 42 also shows as well that of the survey participants from the 88 Mission Support Squadron, 6 (31 percent) strongly disagreed or disagreed that the Internet had increased the amount of time their subordinates spent on the computer, 1 (5 percent) was undecided (neutral) on whether or not the Internet has increased the amount of time his or her subordinates spent on the computer, 12 (64 percent) agreed or strongly agreed that the Internet had increased the amount of time their subordinates spent on the computer.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 3.8. Considering the combined median and mode score was 4, this indicates that the survey participants agreed that the Internet had increased the amount of time that their subordinates spent on the computers while at work.

Personal use of the Internet has decreased productivity for the organization

	AFRL/HESS	%	88MSS	%	Combined	%
Strongly Disagree	1	50%	3	15%	4	18%
Disagree	1	50%	11	55%	12	55%
Neutral	0	0%	2	10%	2	9%
Agree	0	0%	2	10%	2	9%
Strongly Agree	0	0%	2	10%	2	9%
Total	2	100%	20	100%	22	100%

	AFRL/HESS	88MSS	Combined
Mean	1.50	2.45	1.97
Median	2	2	2
Mode	2	2	2
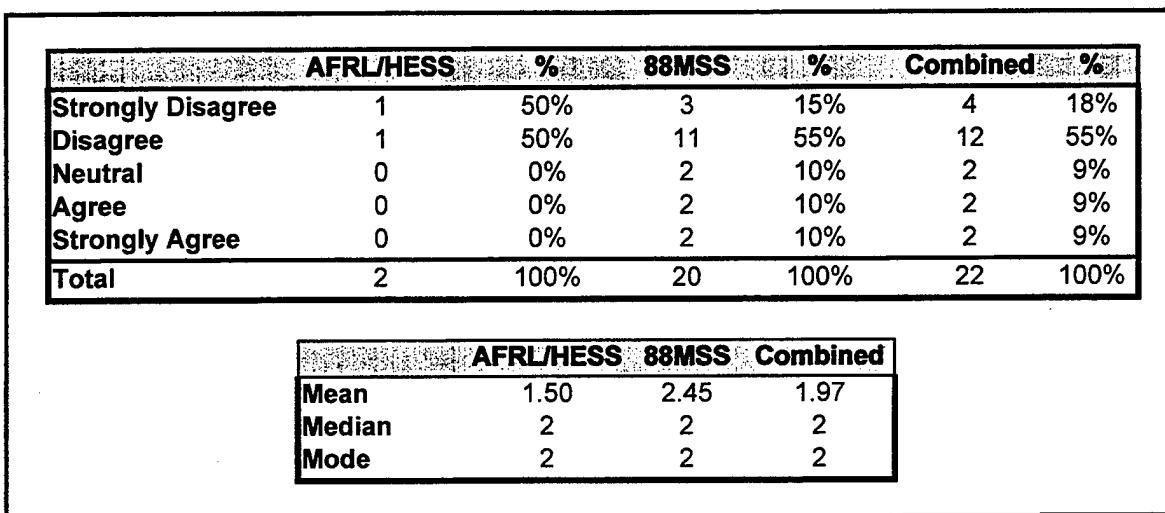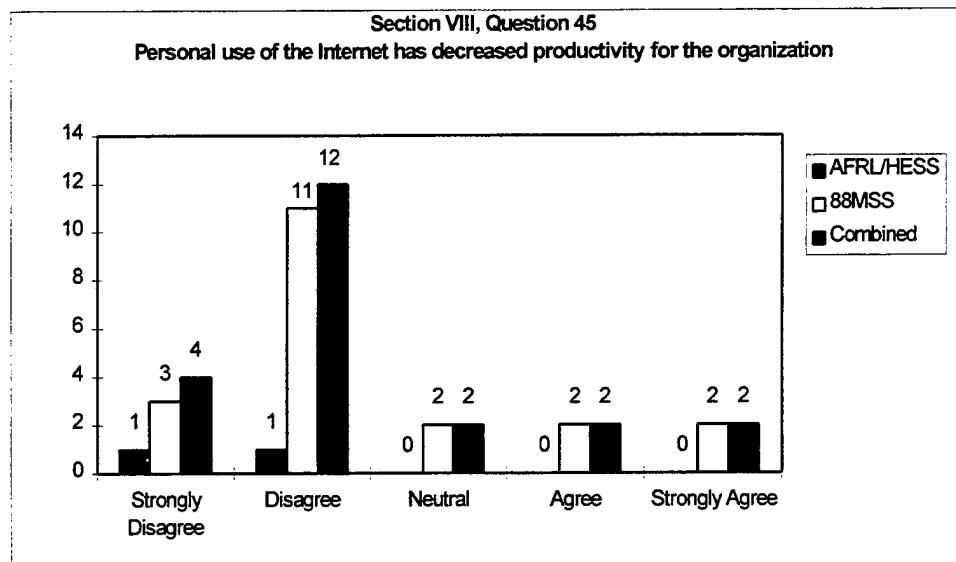
Figure 43: Personal use of the Internet has decreased productivity for the organization.

Figure 43 shows that of the 22 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 4 (18 percent) strongly disagreed that personal use of the

Internet had decreased productivity for the organization, 12 (55 percent) disagreed that

personal use of the Internet had decreased productivity for the organization, 2 (9 percent)

were undecided (neutral) on whether or not personal use of the Internet had decreased

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productivity for the organization, 2 (9 percent) agreed that personal use of the Internet had decreased productivity for the organization, and 2 (9 percent) strongly agreed that personal use of the Internet had decreased productivity for the organization.

Figure 43 also shows that of the survey participants from AFRL/HESS, 2 (100 percent) strongly disagreed or disagreed that personal use of the Internet had decreased productivity for the organization, and 0 (0 percent) were undecided, agreed or strongly agreed that personal use of the Internet had decreased productivity for the organization.

Figure 43 also shows as well that of the survey participants from the 88 Mission Support Squadron, 14 (70 percent) strongly disagreed or disagreed that personal use of the Internet had decreased productivity for the organization, 2 (10 percent) were undecided (neutral) on whether or not personal use of the Internet had decreased productivity for the organization, 4 (20 percent) agreed or strongly agreed that personal use of the Internet had decreased productivity for the organization.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 1.97. Considering the combined median and mode score was 2, this indicates that the survey participants disagreed that personal use of the Internet had decreased productivity for the organization.

Section VIII, Question 46
Do you believe that your subordinates spend too much time on the Internet?

	AFRL/HESS	%	88 MSS	%	Combined	%
Yes	0	0%	3	17%	3	15%
No	2	100%	15	83%	17	85%
Total	2	100%	18	100%	20	100%
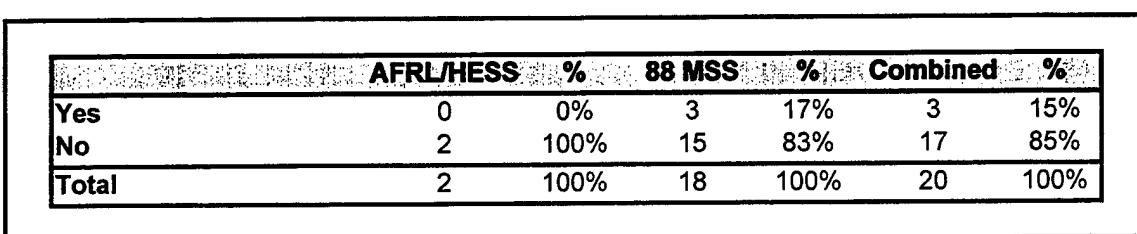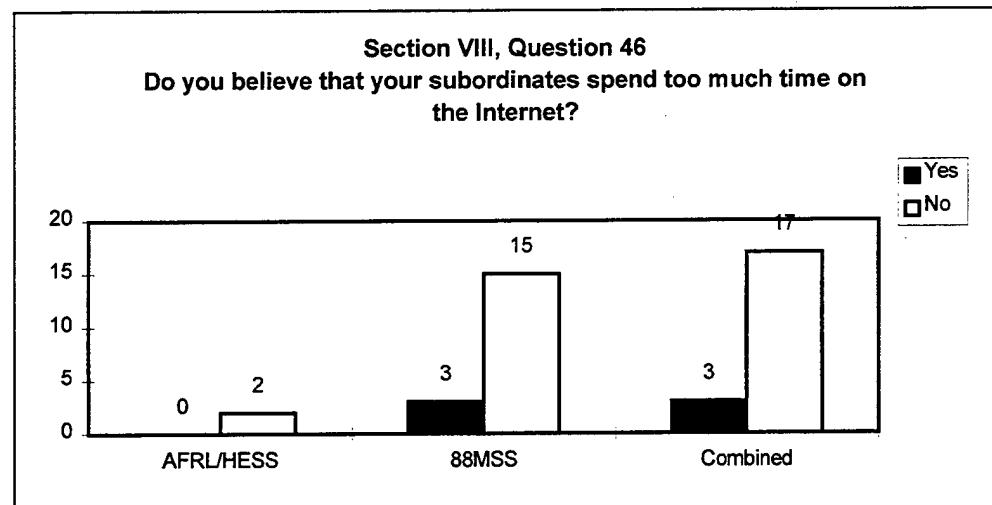
Figure 44: Do you believe that your subordinates spend too much time on the Internet?

Figure 44 shows that of the 20 survey participants from AFRL/HESS and the 88 Mission Support Squadron who respondent to this question, 3 (15 percent) believed that their subordinates spent too much time on the Internet while at work, 17 (85 percent) did not believe that their subordinates spent too much time on the Internet while at work. Figure 42 also shows that the survey participants of AFRL/HESS and the 88 Mission Support Squadron, believed that their subordinates did not spend too much time on the Internet while at work.
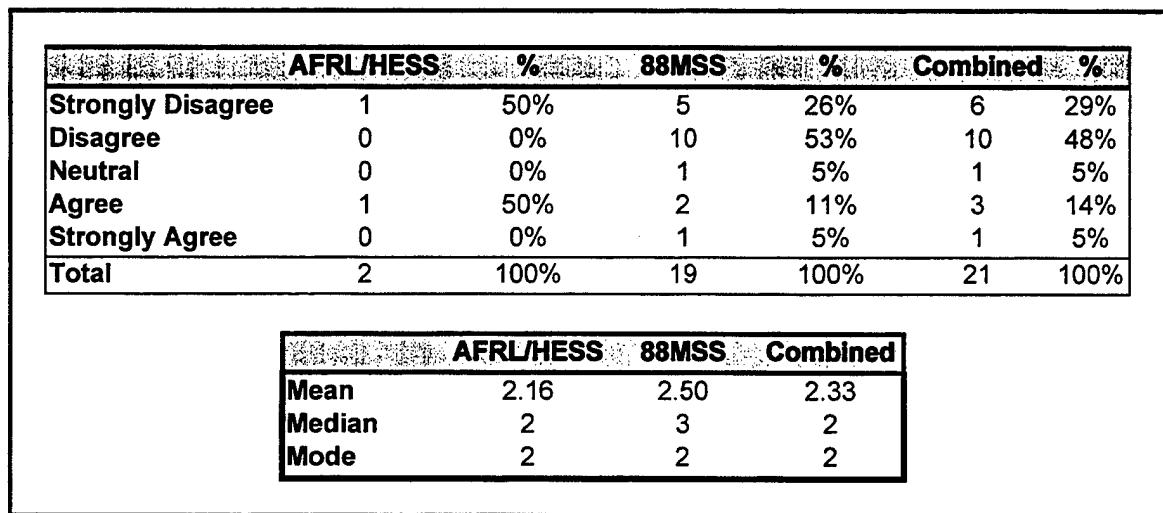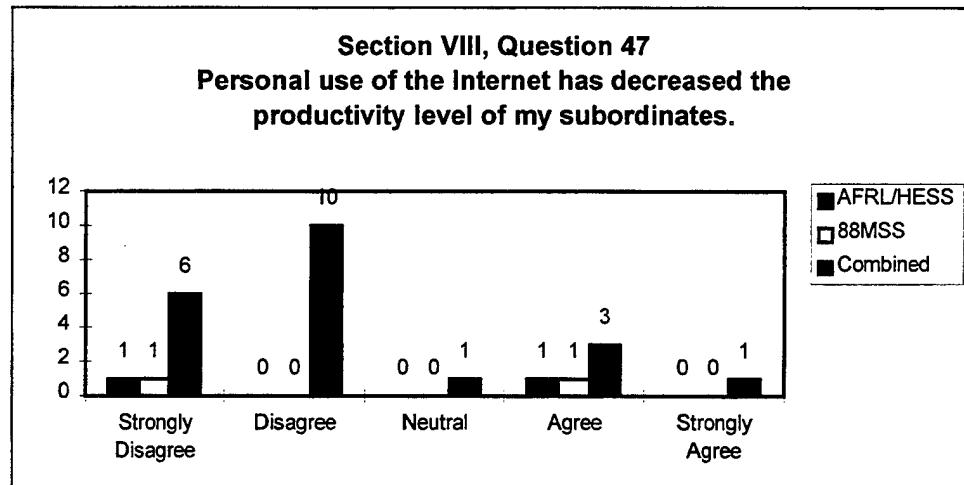
Figure 45: Personal use of the Internet has decreased the productivity level of my subordinates.

Figure 45 shows that of the 21 survey participants from AFRL/HESS and the 88

Mission Support Squadron, 6 (29 percent) strongly disagreed that personal use of the

Internet had decreased the productivity level of their subordinates, 10 (48 percent)

disagreed that personal use of the Internet had decreased the productivity level of their

subordinates, 1 (5 percent) was undecided (neutral) on whether or not personal use of the

Internet had decreased the productivity level of his or her subordinates, 3 (14 percent)

agreed that personal use of the Internet had decreased the productivity level of their

subordinates, and 1 (5 percent) strongly agreed that personal use of the Internet had decreased the productivity level of his or her subordinates.

Figure 45 also shows that of the survey participants from AFRL/HESS, 1 (5 percent) strongly disagreed or disagreed that personal use of the Internet has decreased the productivity level of his or her subordinates, 0 (0 percent) were undecided (neutral) on whether or not personal use of the Internet had decreased the productivity level of their subordinates, 1 (50 percent) agreed or strongly disagreed that personal use of the Internet had decreased the productivity level of his or her subordinates.

Figure 45 also shows as well that of the survey participants from the 88 Mission Support Squadron, 15 (79 percent) strongly disagreed or disagreed that personal use of the Internet had decreased the productivity level of their subordinates, 1 (5 percent) was undecided (neutral) on whether or not personal use of the Internet had decreased the productivity level of his or her subordinates, and 3 (16 percent) agreed or strongly agreed that personal use of the Internet had decreased the productivity level of their subordinates.

The combined mean score for AFRL/HESS and the 88 Mission Support Squadron was 2.33. Considering the combined median and mode score was 2, this indicates that the survey participants disagreed that personal use of the Internet had decreased productivity level of their subordinates.

Section VIII, Question 48
Do you believe that personal use of the Internet at work is out of control?
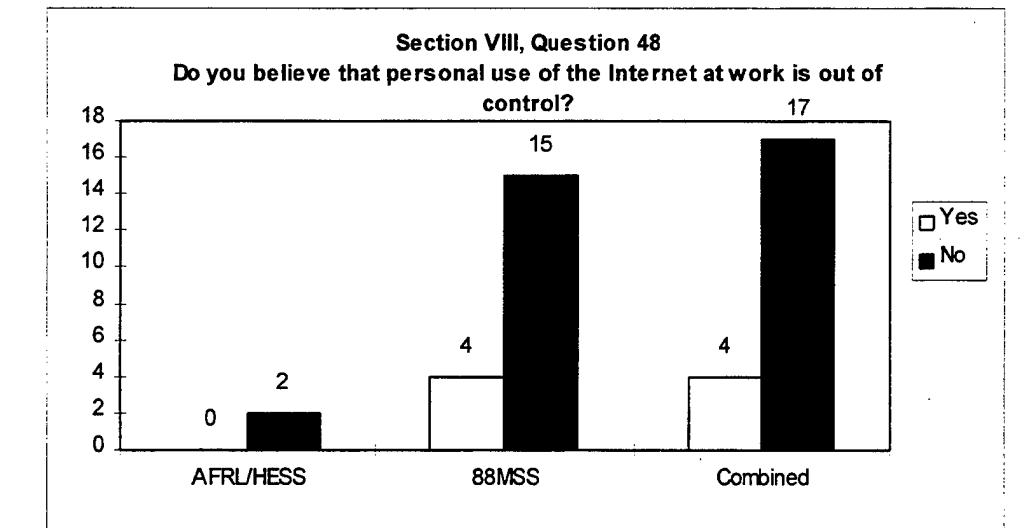
	AFRL/HESS	%	88 MSS	%	Combined	%
Yes	0	0%	4	21%	4	19%
No	2	100%	15	79%	17	81%
Total	2	100%	19	100%	21	100%

Figure 46: Do you believe that personal use of the Internet at work is out of control?

Figure 46 shows that of the 21 survey participants from AFRL/HESS and the 88 Mission Support Squadron who responded to this question, 4 (19 percent) believed that the personal use of the Internet at work is out of control, 17 (81 percent) did not believe that the personal use of the Internet at work is out of control. Figure 44 also shows that the survey participants of AFRL/HESS and the 88 Mission Support Squadron, combined did not believe that the personal use of the Internet at work is out of control.

Section VIII, Question 50
As a supervisor do you believe that there is a problem among your subordinates' Internet use?
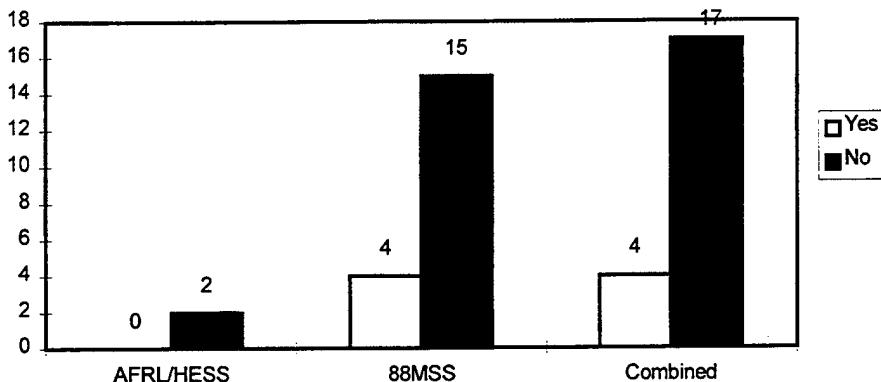
	AFRL/HESS	%	88 MSS	%	Combined	%
Yes	0	0%	4	21%	4	19%
No	2	100%	15	79%	17	81%
Total	2	100%	19	100%	21	100%

Figure 47: As a supervisor do you believe that there is a problem among your subordinates' Internet use?

Figure 47 shows that of the 21 survey participants from AFRL/HESS and the 88 Mission Support Squadron who responded to this question, 4 (19 percent) believed that the personal use of the Internet at work is out of control, 17 (81 percent) did not believe that the personal use of the Internet at work is out of control. Figure 45 also shows that the survey participants of AFRL/HESS and the 88 Mission Support Squadron, combined did not believe that there is a problem among their subordinate's Internet use while at work.

Section V, VI, and VIII: The Effects of Internet Misuse on Productivity Survey

Sections V and VI were created to obtain the opinions of the subordinates by asking them open-ended questions dealing with Internet misuse, personal use of the Internet, steps they thought the supervisor should take to discourage Internet misuse within their squadron, and their thoughts on the policy for personal use of the Internet for the Air Force. Section VIII was designed to ask open-ended questions of the supervisors by asking them how they dealt with the problem of Internet misuse within their squadrons. If they felt there was a problem of Internet misuse, did they experience productivity loss? The survey participants who answered the questions in sections V, VI and VIII are presented in the Appendices B, C, D, E, F, G, H, and I.

Section V, Questions 1 through 4. Question one asked the subordinates to define personal use of the Internet and 87 survey participants responded to the question. The survey participant's responses are listed under Appendix B. The following responses are verbatim for the survey participants who responded to the survey.

Personal use is defined as:

1. Using the Internet for purely personal gain. Personal gain would be those things that are not considered job related (cannot be tied back to the job).

2. Surfing the Internet for purposes of, other than official business.

3. For other than government requirements.

4. Use of the Internet for purely personal reasons, outside the realm of official business, or professional development.

5. Checking items not related to your personal or professional development. Price quotes for stocks and bonds, sports scores are examples of personal use of the Internet.

6. Using the Internet to access information that in no way impacts your job.

7. Use of the Internet for personal gain (not related to any official business). Examples include accessing sports scores, shopping for cars or other items, and playing games while at work.

8. Use of the Internet for unofficial purposes during duty hours or any use of the Internet during non-duty hours.

9. Using the computer for personal gain and no work value added.

10. Personal use of the Internet is anything that does not relate to the job, meaning if you are searching the Internet for plane tickets when you have work to do that is a problem!

According to the survey participants who responded to question one, personal use of the Internet could be defined as using a government provided computer to access the Internet and using the Internet for personal gain or benefit while at work.

Section V, Question 2. Question two asked the subordinates to define misuse of the Internet and 81 survey participants responded to the question. The survey participant's responses are listed under Appendix C. The following responses are verbatim for the survey participants who responded to the survey.

Misuse of the Internet is defined as:

1. Misuse: Inappropriate web pages. Pornographic, misuse representing the Air Force or using the Air Force computers for strictly personal gains such as, making stock trade, off-duty education homework.

2. If it's not work related…then it's misuse.

3. Using the Internet for more than a reasonable of time that would adversely impact job performance and teamwork needed to get the job done.

4. Using the Internet for purely personal reasons, outside the realm of official business or professional development.

5. When a member's use interferes with other's need for official use, or when a member's job performance decreases in effectiveness quality or timelines. A member can interfere with official use by taking up communication lines.

6. Misuse is when an individual is accessing immoral sites or when the time spent on the Internet causes one's productivity to suffer.

7. When you spend excessive time on the Internet for personal use and it adversely affects your ability to perform the job, or when it is used of material that is inappropriate and it gives a negative perception of the Air Force and it's personnel.

8. Not job related or linked to unofficial web-sites. If you wouldn't use a government phone for the same types of business as the Internet you shouldn't use the Internet.

9. When the Internet is used for long period of time for entertainment not productive

10. Use that is completely unrelated to work; which prevents you or others from getting work done.

According to the survey participants who responded to question two, misuse of the Internet could be defined as an Air Force member who uses the Internet during the duty day for other than official use (i.e., checking sport scores or reading the newspaper for four hours while at work) and their productivity level declines as a result of the Internet misuse.

Section V, Question 3, Question three asks the subordinates what they feel a supervisor should do to discourage Internet misuse. Nearly 90 survey participants responded to the question. The survey participant's responses are listed under Appendix D. The following responses are verbatim for the survey participants who responded to the survey.

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What do you feel supervisors should be doing to discourage Internet misuse if it is occurring in the Air Force?

1. Monitor all employees—some are very blatant. Post policy and repeat it often in staff meetings. Counsel individuals when you know they are abusing the Internet.

2. Do checks on computers and make sure the subordinates understand what Internet misuse is.

3. Verbal communication!!!

4. Limit access. I just find it hard to believe that all personnel require use of the Internet in the performance of their jobs.

5. Discuss what is appropriate access (according to the organization in which your currently in). Identify what areas are off limits (be very specific with examples) and explain consequences for violations.

6. Watch their people, tell them the policy and enforce it.

7. Make policies clear, establish strong disciplinary standards for violations.

8. Ensure "rules of the road," are well advertised; establish consequences for misuse/abuse which are consistent across the board, employ sniffers and "filters" at gateways which would prevent access to unauthorized sites.

9. Frequent meetings with subordinates to discuss Internet policy. Review examples of Internet misuse with out subordinates. Implement random checks of computer Internet history files.

10. Clearly define misuse and the penalties that go along with it. Treat each situation case by case. Be consistent and follow through with discipline.

According to the survey participants who responded to question three, supervisors need to be aware of their subordinate's Internet use while at work, such as monitoring their subordinate's Internet use. Supervisors also need to keep their subordinates aware of the Internet policy.

Section V, Question 4. Question four asks the subordinates, What do you think the Air Force policy should be regarding personal use of the Internet? Eight-six survey participants responded to the question. The survey participant's responses are listed under Appendix E. The following responses are verbatim for the survey participants who responded to the survey. What do you think the Air Force policy should be regarding personal use of the Internet?

1. Personal use should be allowed during non-duty hours with the following limitations:

    a) Absolutely no pornographic web-sites will be visited (or other such web-sites that would bring discredit upon the USAF.

    b) Usage of personal nature is similar to that afforded an Air Force member who uses the telephone (i.e., calling a friend during lunch, personal banking, etc.).

    c) Duration of personal use should be limited to lunch hours or one hour prior to or one hour after the duty day!

    d) No Internet games!!

2. Similar to telephone use; limited personal use, personal judgments, ethics, appropriate training.

3. It should be the same as using any government equipment—cannot be used for personal benefit.

4. Clear guidelines on sites allowed or reason to use the Internet.

5. Personal use if the Internet should be limited to lunch time period only. Supervisors should monitor the Internet's use daily, and if unofficial use is occurring, have it documented and researched.

6. I think people should be aware of the cost involved, not only initial cost, but cost in loss of productivity, costs of paper to print found data, etc.

7. Consequences, Consequences, Consequences. Take away Internet privileges.

8. Have a policy that's re-enforceable. Have simple guidelines that people will remember and adhere to. A lot of people get confused with the technical lingo.

9. The Internet and its use should be treated much the same as the telephone such as, personal calls to set up doctors appointments, checking on the status of your vehicle in the shop, checking on family members and etc. should be allowed. E-Mails which are just "chat-chat should not be allowed, with the exception of TDY personnel. E-Mail is cheaper than a phone call.

10. Define misuse and provide disciplinary actions for those who don't follow the rules/policy. The policy must be clear and not subject to interpretation.

11. Air Force personnel should be allowed to use the Internet for personal use within reason. Much like the telephone, smoke breaks, intramural golf etc...

According to the survey participants who responded to question four, the Air Force needs to develop an Air Force Instruction or new guidelines that specifically discusses personal use of the Internet. The AFI should state how the Internet can be used for personal use while at work and the steps that the supervisors can take to correct the problem of personal use of the Internet.

Section VI, Questions 1 through 2. Question one asks the subordinates, Are the productivity gains from the Internet in the Air Force greater than the productivity losses that occur from the personnel misusing the Internet? Sixty-nine survey participants responded to the question. The survey participant's responses are listed under Appendix F. The following responses are verbatim for the survey participants who responded to the survey.

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1. I am unaware of any productivity loss. Proper use of the Internet has allowed my organization to reach more of our customers with a timely, consistent message. I can't imagine doing our business without the Internet.

2. I think it's all equal at this point. Having the Internet does increase productivity (accessing information quickly, less research time involved, etc.). However, with the amount of personal time spent on the Internet less work is being accomplished that should be.

3. I don't feel the Internet use has caused a productivity loss. All personnel in areas that I have worked in, only use it for minimum personal use. The main usage is to increase job-productivity. The Internet enables us to do a better job.

4. I feel that there is much to be gained from having access to the Internet. There is so much time saved from what an individual can obtain themselves that if far outweighs the Internet misuse.

5. Be serious, this is the dawn of a technical boom! With any new system there will always be pros and cons, but most of us normal humans lack the discipline to only conduct official business on the net. We are typical kids in a candy store.

According to the survey participants who responded to question one, the benefits of Internet outweigh the Air Force personnel misusing the Internet. The Internet provides many opportunities to search for information that is all located in one area instead of going place to place trying to find the information that you needed to complete a job. The Internet gives the worker more time for other job-related issues.

Section VI, Question 2. Question two asks the subordinates, do you believe that the Internet is used more for official use or unofficial use? Eighty-three survey participants responded to the question. The survey participant's responses are listed under Appendix G. The following responses are verbatim for the survey participants who responded to the survey.

1. Official.

2. Probably unofficial. I see folks looking up vacation options, soap opera sites all the time. I don't notice as many (or any) government sites up on the monitor.

3. Unofficial use because of the liberal Internet policy.

4. Official, I would hope.

5. Unofficial use, because of the newness, curiosity and availability of technology that we know will sooner or later have to be used whether we want to or not.

6. I believe it may be used an even amount both for official as well as unofficial. There may be some individuals who spend more time on personal, and there are others who use the Internet more for official.

7. Official use, people use it mainly for their jobs, but the Air Force pushed the whole person concept to be well rounded as an individual you must be knowledgeable in a lot of areas. The Internet is an excellent means to keep up with current information.

8. Slightly more for official use. The immediate availability of the Internet makes it easy to misuse. Enforced, clear guidance would significantly reduced misuse. I also think that Internet misuse is just part of a bigger computer misuse problem. If government computer resources are used to develop and print a church bulletin the culprit is just as guilty as they would be when they see who won the ball game last night.

According to the survey participants who responded to question two, the survey

participants argued for both official use and unofficial use of the Internet while at work.

The survey participant's were on both ends of the spectrum as far as Internet use within

their squadron.

Section VII, Question 15. Question 15 asks the supervisor, have you experienced

problems among your subordinate's Internet use, if so how have you dealt with the

problems with your organization? Nine survey participants responded to the question. The

survey participant's responses are listed under Appendix H. The following responses are

verbatim for the survey participants who responded to the survey.

1. No.

2. Remind them about policy

3. Yes, tell them what is acceptable and enforce the rules.

4. Delays in completing assigned work. Apathy toward the job.

5. Haven't experienced any actual problems, but I know that my employees are

    using the Internet for personal use.

According to the survey participants who responded to question 15, the survey

participants seem to agree that it is important for the supervisor to let the subordinates

know the latest on policy and how the policy will affect them if someone violate the

Internet policy.

Section VII, Question 16. Question 16 asks the supervisor, do you believe that

there is a problem of Internet use among your subordinates and have they experienced any

type of productivity loss because of the Internet misuse. Four survey participants

responded to the question. The survey participant's responses are listed under Appendix

H. The following responses are verbatim for the survey participants who responded to the

survey.

1. None.

2. None.

3. None.

4. Wasted man-hours.

According to the survey participants who responded to question 16, the supervisors seem to agree they have not experienced any problems of Internet misuse among their subordinates while at work.

Chapter Summary

Chapter IV illustrates the results from the Effects of Internet Misuse on Productivity survey that was distributed to AFRL/HESS and the 88 Mission Support Squadron. Chapter IV also provided sufficient background information for the researcher to help explain the proposed research questions that were discussed in Chapter I to the reader. Chapter V will answer the proposed research questions, discuss some of the limitations that the researcher experienced throughout the thesis process, recommendations for a new Air Force Internet policy, and some future areas of research to further the Air Force on dealing with Internet misuse.

V. Discussions

Overview

This chapter will focus on answering the seven research questions that were proposed in Chapter I. Chapter V will also make recommendations for a new Internet policy that will specifically cover the personal use of the Internet while at work, discuss the limitations of the survey instrument that was used in gathering the results that were illustrated in Chapter IV, and propose some areas of further research.

Research Questions Answered

Research Question #1: Does the Internet increase the productivity level of an Air Force member?

According to the results from Chapter IV, the Internet does increase an Air Force member's productivity level while working with the Internet. Figures 11, 18, and 24 in Chapter IV indicated that the survey participants agree that the Internet was responsible for making them more productive while at work. Air Force personnel are starting to realize that the Internet can increase their productivity level. Now, with the help of the Internet, the Air Force members use less time and fewer personnel to conduct tasks. With the increase in productivity as a result of the Internet, there will be more time for Air Force personnel to complete their job more efficiently as well as perform additional tasks.

Research Question #2: Does the Internet increase the productivity level of an organization within the Air Force?

Figures 28 and 39 in Chapter IV illustrate the fact that the survey participants, who responded to the survey, believe that the Internet does increase the Air Force organization's overall productivity level. Many of the surveys that were collected from the participants throughout the research period discussed how they would not been as productive or been able to complete their job on time if they did not have Internet access while at work. The Internet has increased the organization's productivity level which means they now have more time for other interests, such as in-house training, studying for promotions, and learning how to cover additional tasks within the squadron or use the Internet for personal use.

Research Question #3: Does the Air Force have a problem with Internet misuse?

According to the survey participant's results from Chapter IV, figures 23, 29, 37, and 45 show that the survey participants from AFRL/HESS and the 88 Mission Support Squadron believe that the Air Force does not have a problem of Internet misuse. As a result of the research that has been done on this thesis, the survey participants showed that they believe that the Air Force does not have a problem with Internet misuse among its personnel. The survey participants also expressed that as with any new technology there will always be a few examples of people who want to test the system to see how far they can go on the new technology this can lead to Internet misuse.

Research Question #4: Does the misuse of the Internet outweigh the benefits of the productivity of the Internet?

According to the survey participants, the benefits of the Internet outweigh the losses incurred by Air Force personnel who are misusing the Internet. The Internet provides many opportunities to search for information that is located within one central area instead of searching from place to place trying to find the information that is needed to complete a project. The Internet gives the employees more time for other job-related activities. Figures 27 and 38 show that the survey participants from both squadrons believe that the misuse of the Internet does not outweigh the benefits and the productivity that the Internet provides to the Air Force member.

Research Question # 5: What should an organization's supervisors be doing to fight against the misuse of the Internet?

The results from the open-ended questions that were asked of the members of AFRL/HESS and the 88 Mission Support Squadron agree that the supervisors need to be more involved in preventing Internet misuse. Supervisors need to keep the members informed of the latest information on the Internet policy. The supervisors also need to monitor the Internet activities of their employees while at work. Finally, supervisors should also tell their subordinates what they believe to be appropriate use of the Internet as long as the directions follow the Air Force and organizational Internet policy.

Research Question #6: What recommendations can be made regarding how the Air Force views personal use of the Internet within an organization?

The survey participates from AFRL/HESS and the 88 Mission Support Squadron made many recommendations on how the Air Force should view personal use of the Internet while at work. Most of the survey participants agree that personal use of the Internet while at work and representing the United States Air Force should be of official business and not to discredit the Air Force. Many recommendations were made by the personnel who wanted more specific guidelines on what the Air Force members can do while using the Internet for personal use at work. Another recommendation was that members who use the Internet for personal use while at work should use the Internet the same as any other government equipment, not for personal gain or benefit.

Research Question # 7: Why is Air Force personnel using the Internet?

Figure 18 and Table 6 from Chapter IV illustrate that a major portion of the survey participants who responded to the survey from AFRL/HESS and the 88 Mission Support used the Internet for many different activities while at work, but most often for the following activities: E-Mail, searching the Internet for work-related information, checking on the latest news, AFPC Homepage (checking on assignment information), and browsing the Internet through search engines (Yahoo, etc.). The largest portion of the survey participants that used the Internet used E-Mail and reading the latest news more than any other activities that were listed.

Research Question #8: How do Air Force members perceive the Air Force policy on personal use of the Internet within their organization?

According to the survey participants from AFRL/HESS and the 88 Mission Support Squadron, they perceive the Air Force's policy on personnel use of the Internet within their organization at strict to undecided. Figure 8 from Chapter IV illustrates the fact that most of the survey participants were undecided on whether or not their Internet policy was sufficient for their organization. Almost half of the survey participants from both squadrons were undecided on whether or not they believed that their organization's Internet policy was between strict to liberal. Another 23 percent of the survey participants believed that their organization's Internet policy was strict. Figure 9 also shows that nearly 40 percent of the survey participants believed that their organization's Internet policy was clear and effective for their organization.

As the results show, over half of the members who were surveyed did not feel that their organization's Internet policy was clear and effective. The Air Force needs to implement a new policy that will give directions on what the Air Force believes to be appropriate use of the Internet while at work. The policy needs to specifically state how the members of the Air Force can use the Internet at their desks. The policy also needs to give the commanders some direction on how to discipline people if they are caught abusing the Internet while at work. Finally, it is important to state the appropriate times when an Air Force member can use the Internet for personal use.

Limitations of the Study

As with as any research effort, there will always be problems that the researcher experiences with the survey instrument and the data collection methods that were used for the study. One of the problems was with the sample size of the two squadrons (AFRL/HESS and the 88 Mission Support Squadron) that were surveyed for the thesis. The problem was that there were not enough supervisors to compare the opinions and beliefs of each group to test if there were strong differences between the two groups of supervisors and subordinates.

One of the main concerns of this research effort was that the research questions and the survey instrument that were used to gather the data were more on the qualitative side of research than quantitative research. One of the problems that the researcher was faced with when using qualitative questions was that the data that was collected was more of opinion and beliefs of the survey participants than hard facts or numbers. Without the quantitative data to analyze, the data that was collected from the survey that was sent to AFRL/HESS and the 88 Mission Support Squadron is hard to validate.

Another limitation of the research involves using people and choosing a topic that can involve disciplinary actions. One of the main concerns when the survey instrument was created and distributed to the members of AFRL/HESS and the 88 Mission Support Squadron was how the survey participants would respond to questions about their use of the Internet while at work. The results that were illustrated in Chapter IV show that many of the participants either chose agree or disagree.

Another area of concern that could affect the survey results is when the researcher assumes that the survey participants understand the terms that are used throughout the survey. The problem that occurred with this research was that the researcher did not specifically describe the key terms throughout the survey and this oversight could have caused some of the results to be biased.

The last area that was a problem was with the wording of some of the questions that were used in the survey instrument that was distributed to the members of AFRL/HESS and the 88 Mission Support Squadron. Specifically section III, question 18 (Please indicate how many hours per day on average you use your computer to do the following?). Question 18 was designed to find out how much time people were spending on the Internet while at work. Many of the survey participants checked the blocks that they used instead of filling in amount of time. This misunderstanding made interpreting this question difficult.

Future Implications/Recommendations

The results that were presented in Chapter IV address the research questions that were illustrated in Chapter I. Considering the open-ended questions that were presented in Appendices B-I, there are several recommendations that need to be shown that relate to the personal use and Internet misuse within the Air Force. The future implications of the recommendations are outlined below.

Supervisor support of preventing Internet misuse. Supervisors need to be directly involved with their subordinate's Internet use while at work. The supervisors must ensure that everyone within their command understand what they believe to be appropriate

use of the Internet. It is important that the supervisors hold their personnel accountable for missing deadlines because of Internet use and to indicate to the subordinates what areas of the Internet are off-limits. Supervisors need to ensure that all applicable Internet polices are well advertised throughout the work area. Supervisors need to communicate the consequences for Internet misuse and to be consistent when dealing with punishment of subordinates. The supervisors throughout the Air Force need to realize that many of the problems with Internet use can be resolved by having the supervisor simply monitor the work area to see what their subordinates are doing while working on the Internet.

Establishing a new Internet policy within the Air Force. According to the survey participants whose responses are listed in Appendix E, the Air Force needs to have a clear and effective guideline on what types of sites are allowed and for what reasons the personnel can use the Internet at work. The Air Force can address the problem of Internet misuse by establishing new guidelines that define official and authorized use of the Internet by Air Force personnel during the duty day. The policy should be specific and discuss how the Air Force views official use of the Internet during duty hours.

The Air Force needs to develop an Air Force Instruction that specifically discusses personal use of the Internet. The AFI should also state how the Internet can be used for personal use while at work and the steps that the supervisors can take to correct the problem of personal use of the Internet. The Internet policy should also cover when and where Air Force members can use the Internet for personal use while on duty. One of the survey participants suggested having an Internet policy that is "re-enforceable" and having an Internet policy that is simple to follow. The Internet policy on personal use should not

be subject to interpretation, the policy needs to outline what is expected of the commanders, supervisors and subordinates. Everyone within the Air Force has a role to help prevent Internet misuse.

The Air Force policy should incorporate the following: accessing the Internet for personal use while at work is permissible as long as the personal use of the Internet is within reason and the individual use proper judgment. The new personal use policy should resemble the policy for other government property, such as the telephone or the personal computer. "The Internet and it use should be treated much the same as the telephone, i.e., personal calls to set doctor appointments, check on the status of vehicle in the shop, and checking on family members" (Appendix E, Number 57). Commanders can approve the use of the Internet for personal use in the morning before work, during the lunch break or after work. Commanders can also authorize personal use of the Internet for members of their squadron to help to boost morale.

Areas for Further Research

There are many areas of interest concerning the Air Force and how they regulate Internet use among their personnel. The majority of the survey participants stated that throughout the Appendices that there needs to be an Internet policy that is clear and easy to follow. There was a large amount of data that was collected through the use of the survey instrument that was sent to the survey participants from AFRL/HESS and the 88 Mission Support Squadron and subsequent research could be based on the result of this thesis research.

Compare Internet use of two organizations that are of similar size. An area that could have been helpful in understanding the current Internet use among Air Force personnel would be to compare two organizations of similar size and mission requirements. The survey instrument that was designed for this thesis could be adapted to the two new organizations quite easily.

Comparing how Air Force personnel view personal use of the Internet. This research could be the basis for a thesis covering how Air Force personnel view personal use of the Internet throughout the Air Force. More thorough research could be done regarding the way members throughout the Air Force view the Internet and how personal use of the Internet is going to become a normal part of the duty day within the Air Force, such as the telephone has in the past.

Determining the most efficient method of supervising Internet use. An individual with experience managing both personnel as well as computer systems would be ideal for this type of research. The data that was collected from the survey instrument would be beneficial in getting an individual started in creating another survey instrument that could investigate what Air Force members feel is the most efficient method of managing the Internet.

Summary

The research that was conducted for this thesis investigated the misuse of the Internet by Air Force personnel and how the Internet affects the productivity of the members within their work environment. The research was collected through the use of a survey instrument that was sent to AFRL/HESS and the 88 Mission Support Squadron,

both of Wright-Patterson AFB, OH. The research demonstrated that the Internet does increase individual productivity as well as the overall productivity for an organization. The research also showed that the survey participants believed that the misuse of the Internet did not affect the productivity gains that each member experienced from the Internet. Many of the survey participants also showed that their organization does not have a problem of Internet misuse.

The research showed as well, that many of the Internet users that were surveyed, believed that the Air Force needs an Internet policy that is clear and simple for everyone to understand. The policy also needs to outline what the Air Force believes is appropriate for personal use of the Internet while at work such as, when members can use the Internet, for what types of activities the Internet can be used for, and what type of disciplinary actions commanders can take if their personnel misuse the Internet. The Air Force needs to be concerned with the fact that the members are unsure about the current policy and they feel that the supervisors need to do a better job of keeping the subordinates abreast of the changes among the Internet policy.

Appendix A. The Effects of Internet Use On Productivity
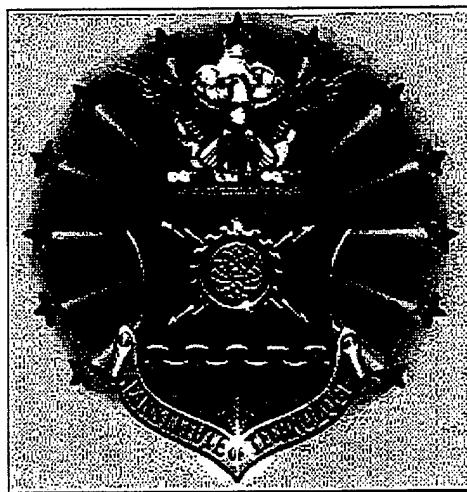
THE EFFECTS OF INTERNET USE ON PRODUCTIVITY

SUBORDINATE AND SUPERVISOR SURVEYS

DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY (AETC)
AIR FORCE INSTITUTE OF TECHNOLOGY

Survey Control Number (AUSCN 98-38)
Expiration Date (31 August 1998)

Information
About this Research Study

Thank you for agreeing to participate in this research study. Your knowledge of computers and work experience will make an important contribution to the goals of this study.

Description of the study: The purpose of this study is to measure the impact of the use of the Internet by Air Force personnel. This survey will be sent to supervisors and subordinates to research how the misuse of the Internet can affect productivity within an organization.

How your responses will be used: The results of the survey will be used to determine if productivity is influenced by personal use of the Internet.

Confidentiality of your responses: This information is being collected for research purposes only. No one in your unit, base, or MAJCOM will ever see your individual responses.

PRIVACY ACT STATEMENT

In accordance with AFI 36-2601, paragraph 8, the following information is provided as required by the Privacy Act of 1974.

Authority: 10 U.S.C. 8013, Secretary of the Air Force; powers and duties; delegation by; implemented by AFI 36-2601, Air Force Personnel Survey Program.

Purpose: This survey is being conducted to collect demographic and behavioral data regarding the use of the Internet within an organization. This data will be analyzed to determine its impact on productivity within an organization.

Routine Use: No analysis of individual responses will be conducted and ONLY members of the research team will be permitted to access the raw data. **Reports summarizing how the misuse of the Internet can affect an organization may be published.** *No individual will be identified to anyone outside of the research team.*

Participation: Participation is voluntary. Your responses will be held in complete confidence. No adverse action will be taken against any member who does not participate in this survey or who does not complete any part of this survey.

Contact Information

If you have any questions, please feel free to contact my thesis advisor, Major Vickery or myself.

1Lt Scott A. Stevens	Major Caise Vickery
AFIT/LAL	AFIT/LAS
2950 P Street, Bldg 641	2950 P Street, Bldg 641
Wright-Patterson AFB, OH 45433-7765	Wright-Patterson AFB, OH 45433-7765
E-mail: sstevens@afit.af.mil	E-Mail: cvickery@afit.af.mil
Phone: (937) 255-7777 ext 2158 (voice mail)	(937) 255-7777 ext 3368

INSTRUCTIONS

This questionnaire contains 58 items (individual "questions"). All items must be answered by filling in the appropriate spaces on the sheets provided. If for any item you do not find a response that fits your situation exactly, use the one that is closest to the one that meets your situation.

Please answer the questions on the survey itself. Do NOT write your name on either sheet so that your responses will be anonymous.

For the following questions, please check the appropriate space where indicated. When asked to make comments or give examples, please use as much space and/or additional paper as you would like.

If you would like to add more information to any of the questions throughout the survey, feel free to add your comments in the lines provided underneath each question.

For the purposes of this survey the Internet includes: (WWW) Web browsing, (AOL, Yahoo, and Prodigy) E-Mail, File Transfer Protocol (FTP), Chatrooms, News and Sports groups, Usenet News, Gopher, Internet Phone, financial status, shopping and downloading games. Personal use is defined as using government resources (i.e., computers, Internet Service Providers and E-Mail) for use other than official purposes that are not work related. Internet Misuse is defined as an Air Force member who is using the Internet during the duty day for other than official business or that is not work-related. (i.e., checking sports scores and the stock market).

For the purposes of this survey, official E-Mail will be considered as anything related to work. Unofficial
E-Mail is anything not related to work.

This survey is intended for employees who have Internet access at work. If you do not meet these criteria, please return the survey to your point of contact located within your package. Thank you for your time.

SECTION I

Organization:_____

Rank:_____

How much experience do you have working with computers: Years_____ Months_____

Are you currently supervising anyone? _____ Yes _____ No

If you are currently a supervisor, please fill out the entire survey. If you are not currently a supervisor, you only need to complete the subordinate's section of the survey and you can stop at Section VII.

SECTION II (Computer Familiarity)

This section is to let the researcher know what your perspective is on the Internet.

For the following questions, please check the appropriate space where indicated. When asked to make comments or give examples, please use as much space and/or additional paper as you would like.

1. Do you routinely use a computer in the course of your daily work? ___ Yes ___ No

2. Do you have access to a computer at work?   _____ Yes _____ No

3. Do you have a computer at home?   _____ Yes _____ No

4. Do you have Internet access at work?   _____ Yes _____ No

5. Do you use the Internet at home?   _____ Yes _____ No

6. Are you able to connect from home to work? (To enable
    you to read E-Mail, download files at home, or connect to the Internet) ____ Yes ____ No

7. How do you primarily access the Internet when at work? (Please, check the answer that applies)

> From your desktop (work)   _____
> Shared computer resource between Individuals   _____
> Other (Please define)

Written
Comments:_____

_____

_____

8. How long have you been actively using the Internet? (Please, check the answer that applies)

	(For Work Use)	(For Home Use)
Less than 1 full year	_____	_____
More than 1 year but under 2 years	_____	_____
More than 2 years but under 3 years	_____	_____
More than 3 years but under 4 years	_____	_____
Over 4 years	_____	_____

9. Why do you use the Internet at work? (Check all that apply):

	(For Work Use)	(For Personal Use)
Entertainment/Fun	_____	_____
Shopping	_____	_____
Research/Information gathering	_____	_____
News/Current Events	_____	_____
Other (Please Specify)		

Written Comments:

_____
_____
_____

10. On a scale of 1 to 5, how do you perceive your organization's Internet use policy.

1	2	3	4	5
very strict	strict	neutral (not sure)	liberal	very liberal

Written Comments:

_____
_____
_____

11. My organization's Internet policy is clear in explaining what types of sites are allowed.

1	2	3	4	5
strongly disagree	disagree	neutral (not sure)	agree	strongly agree

Written Comments:

_____
_____
_____

SECTION III (SUBORDINATE'S Attitude Towards Using the Internet)

The following questions are about your usage of the Internet.

1. The Internet is essential for successful performance of your job.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____
_____
_____

2. Using the Internet at work has made you more productive.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____
_____
_____

3. When at work, more time is spent on work issues versus personal issues. (Personal issues are defined as searching the Internet for items such as mutual funds or prices for plane tickets).

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____
_____
_____

4. What time of day do you typically browse the Internet?
    (Please, check all the answers that apply)

	(For Work Use)	(For Personal Use)
Varies throughout the day	_____	_____
5 am -noon	_____	_____
Noon-5pm	_____	_____
5pm-9pm	_____	_____
9pm-midnight	_____	_____
Midnight-5am	_____	_____

5. On average, how often do you use the Internet?

	(For Work Use)	(For Personal Use)
Not at all	_____	_____
Less than once a day	_____	_____
About once a day	_____	_____
2 or 3 times a day	_____	_____
4 to 6 times a day	_____	_____
more than 6 times a day	_____	_____

6. On average, how much time during the duty day do you believe you spend on the Internet while at work? (Personal use is defined in the instructions).

(For Work Use)	(For Personal Use)
____ 6 hours or more	____ 6 Hours or more
____ Between 4 and 6 hours	____ Between 4 and 6 hours
____ Between 2 and 4 hours	____ Between 2 and 4 hours
____ Between 1 and 2 hours	____ Between 1 and 2 hours
____ Between 15 minutes and 1 hour	____ Between 15 minutes and 1 hour
____ Less than 15 minutes	____ Less than 15 minutes

7. Please indicate how many hours per day on average you use your computer to do the following:
(Check all that apply)

Uses	Hours per day	
	(For Work)	(For Home)
News related information	_____	_____
AFPC Homepage (Checking on assignments)	_____	_____
Searching for work related issue	_____	_____
Posting information on a home-page	_____	_____
Browsing the Internet through search engines (i.e.,Yahoo, WebCrawler)	_____	_____
Checking stocks and bonds	_____	_____
(Sports) Searching for the latest scores	_____	_____
Playing games (on-line)	_____	_____
E-Mail	_____	_____
FTP	_____	_____
Official Use	_____	_____
Other (Specify on the following page)	_____	_____

Written Comments:

_____

_____

_____

8. Which Internet services do you use?

	(Work)	(Home)
Web Browsing	_____	_____
E-mail (AOL, Yahoo)	_____	_____
FTP	_____	_____
Chat	_____	_____
Newsgroups/Usenet	_____	_____
Gopher	_____	_____
Internet phone	_____	_____
Games	_____	_____
Financial Status	_____	_____
Shopping	_____	_____
Other (Please desribe)	_____	_____

Written Comments:

_____

_____

_____

9. Of those individuals in your organization who use the Internet at work, what portion of that Internet use do you believe is actually job related and what portion may be considered personal?

1	2	3	4	5
strictly personal	mostly personal some job related	half personal half job related	mostly job related/ some personal	strictly job related

Written Comments:

_____

_____

_____

SECTION IV

For the following questions please answer how you feel about each statement.

1. My work productivity suffers as a result of spending too much time on the Internet during duty hours.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____

_____

_____

2. I have difficulty limiting the time I spend on the Internet while at work.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____

_____

_____

3. My co-workers and supervisors are comfortable with the amount of time I spend on the Internet.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____

_____

_____

4. My work output has suffered as a result of spending too much time on the Internet.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____

_____

_____

5. Having access to the Internet has positively impacted my efficiency in my job.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____

_____

_____

6. I perceive a problem within my organization with Internet use.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____

_____

_____

7. Access to the Internet has made me more productive at work.

| 1 | 2 | 3 | 4 | 5 |
| strongly disagree | disagree | neutral | agree | strongly agree |

Written Comments:

_____

_____

_____

8. Having access to the Internet has negatively impacted my efficiency in my job.

| 1 | 2 | 3 | 4 | 5 |
| strongly disagree | disagree | neutral | agree | strongly agree |

Written Comments:

_____

_____

_____

9. The personal use of the Internet by Air Force members affects the productivity of my organization.

| 1 | 2 | 3 | 4 | 5 |
| strongly disagree | disagree | neutral | agree | strongly agree |

Written Comments:

_____

_____

_____

10. The misuse of the Internet by Air Force personnel outweighs the benefits and productivity the Internet provides.

| 1 | 2 | 3 | 4 | 5 |
| strongly disagree | disagree | neutral | agree | strongly agree |

Written Comments:

_____

_____

_____

11. The Internet increases my organization's productivity.

| 1 | 2 | 3 | 4 | 5 |
| strongly disagree | disagree | neutral | agree | strongly agree |

Written Comments:

_____

_____

_____

12. Do you believe that the personal use of the Internet at work is out of control?
____ Yes ____ No

(If you answered No, please skip to question 1 of Section V).

13. If unofficial use of the Internet is out of control, what do you believe is the best solution to correcting the misuse of the Internet within the Air Force? (Please, rank the following choices in order of importance, one being the most important).
__ Better policy guidance (AFI's)
__ Better organizational policy guidance (OI's)
__ More restrictions on Internet browsing during duty hours
__ Restrict complete access to the Internet during duty hours
__ Better supervision of personnel during duty hours
__ Monitoring Air Force personnel activities on the Internet
__ Others (please use lines below)

Written Comments:

_____
_____
_____

SECTION V

For the following questions, please write your responses within the lines provided. When asked to make comments or give examples, please use as much space and/or additional paper as you would like.

1. How would you define personal use of the Internet?

Written Comments:

_____
_____
_____
_____
_____
_____

2. How would you define Internet Misuse?

Written Comments:

_____
_____
_____
_____
_____
_____

3. What do you feel supervisors should be doing to discourage Internet misuse if it is occurring in the Air Force?

Written Comments:

_____
_____
_____
_____
_____
_____

4. What do you think the Air Force policy should be regarding personal use of the Internet?

Written Comments:

_____
_____
_____
_____
_____
_____

SECTION VI

For the following questions, please explain your answers and why you felt a certain way about the question within the lines provided. When asked to make comments or give examples, please use as much space and/or additional paper as you would like.

1. Are the productivity gains from Internet in the Air Force greater than the productivity losses that occur from the personnel misusing of the Internet? (I.e., checking stock market prices, playing games, and browsing the Internet for entertainment). Please, explain why you feel the Internet is worth the productivity loss or why you feel that the Internet is not worth the productivity loss.

Written Comments:

_____
_____
_____
_____
_____
_____

2. In your opinion, do you believe that the Internet is used more for official use or unofficial use? (Please explain).

Written Comments:

_____
_____
_____
_____
_____
_____

If you are not currently supervising anyone at this time, you have completed your section of the survey. Thank you for taking time to complete this survey.

If you are currently supervising someone, please go on to the next section of the survey

SECTION VII (SUPERVISORS)

This section is to let the researcher know what your perspective is on the Internet. (I.e., the amount of time spent on the Internet and what type of sites your subordinates go to during the duty day).

1. For which of the following purposes of information gathering or browsing do you think your subordinates use the Internet at work? (Please, check all appropriate answers that apply and check all the Internet uses that apply for you as well).

	(Supervisor)	(Subordinate)
News related information	_____	_____
AFPC Homepage (Checking on assignments)	_____	_____
Searching for work related issues	_____	_____
Posting information on a home-page	_____	_____
Browsing the Internet through search engines (i.e.,Yahoo, WebCrawler)	_____	_____
Checking stocks and bonds	_____	_____
(Sports) Searching for latest scores	_____	_____
Playing games (on-line)	_____	_____
Personal E-Mail (not consider official use)	_____	_____
Chat Rooms	_____	_____
News groups	_____	_____
Sports groups	_____	_____
Other (Specify)	_____	_____

Written Comments:

_____
_____
_____

2. On average, how much time during the duty day do you believe your subordinates are spending on the Internet. (If you have more than one subordinate, list the number of people per category)

(For Work Use)
____ 6 hours or more
____ Between 4 and 6 hours
____ Between 2 and 4 hours
____ Between 1 and 2 hours
____ Between 15 minutes and 1 hour
____ Less than 15 minutes

(For Personal Use)
____ 6 Hours or more
____ Between 4 and 6 hours
____ Between 2 and 4 hours
____ Between 1 and 2 hours
____ Between 15 minutes and 1 hour
____ Less than 15 minutes

3. On average, how much time during the duty day do you believe you spend for personal use on the Internet while at work. (Personal use is defined in the instructions).

(For Work Use)
____ 6 hours or more
____ Between 4 and 6 hours
____ Between 2 and 4 hours
____ Between 1 and 2 hours
____ Between 15 minutes and 1 hour
____ Less than 15 minutes

(For Personal Use)
____ 6 Hours or more
____ Between 4 and 6 hours
____ Between 2 and 4 hours
____ Between 1 and 2 hours
____ Between 15 minutes and 1 hour
____ Less than 15 minutes

SECTION VIII

For the following questions please answer how you feel about each statement.

1. Internet access at my desk is essential in completing my work.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____
_____
_____

2. My subordinates need Internet access to complete their work.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____
_____
_____

3. Using the Internet increases my subordinate's productivity level.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____

_____

_____

4. In my opinion there is a problem with personal use of the Internet within my organization.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written
Comments:

_____

_____

_____

5. In my opinion there is a problem with the personal use of the Internet among my subordinates.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____

_____

_____

6. Problems associated with Internet misuse outweigh the benefit of the productivity gain within my organization.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____

_____

_____

7. The Use of the Internet increases my organization's productivity level.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____

_____

_____

8. The Internet has increased the amount of time that my subordinates spend on the computer.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____

_____

_____

9. Personal use of the Internet has decreased productivity for the organization.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____

_____

_____

10. Do you believe that your subordinates spend too much time on the Internet?
____ Yes ____ No

11. Personal use of the Internet has decreased the productivity level of my subordinates.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Written Comments:

_____

_____

_____

12. Do you believe that personal use of the Internet at work is out of control? ____ Yes ____ No
(If you answered No, please skip to question 14).

13. If unofficial use of the Internet is out of control what do you believe is the best solution to correcting the misuse of the Internet within the Air Force? (Please, rank the following choices in order of importance, one being the most important).
__ Better policy guidance (AFI's)
__ Better organizational policy guidance (OI's)
__ More restrictions on Internet browsing during duty hours
__ Restrict complete access to the Internet during duty hours
__ Better supervision of personnel during duty hours
__ Monitoring Air Force personnel activities on the Internet
__ Others (please use lines below)
Written Comments:

_____

_____

_____

14. As a supervisor do you believe that there is a problem among your subordinates' Internet use?
_____ Yes _____ No

15. As a supervisor have you experienced problems among your subordinate's Internet use, if so how have you dealt with the problem within your organization?

Written Comments:

_____
_____
_____
_____
_____
_____

16. If you believe that there is a problem with Internet use among your subordinates, what types of productivity losses have you experienced within your organization?

Written Comments:

_____
_____
_____
_____
_____
_____

Thank you for taking the time to participate in this research. Your responses will be held strictly confidential. Please return the completed survey by e-mail or distribution to the following address:

       1Lt Scott A. Stevens
       AFIT/LAL
       2950 P Street, Bldg 641
       Wright Patterson AFB OH 45433
       E-Mail: sstevens@afit.af.mil
       Phone: (937) 255-7777 ext 2158 (Voice Mail)
              785-7777 ext 2158 (DSN)
              (937) 259-0591 (Home)

Appendix B. Survey Responses: Section V, Question 1

How would you define personal use of the Internet? (Please explain).

1. Anything that is not necessary to perform your duties.

2. Use for something other than what you need to accomplish task or mission. For example: Printing information on gambling games at Casino's, printing biographies of beauty pageant contestants of all 50 states because an associates niece is in the pageant. Surfing all day because you are not assigned any tasking.

3. The majority of information coming across my computer is in form of jokes, etc. Very little information coming across is necessary for normal operations. This to me is a waste of money.

4. Using government-owned hardware/software for personal interests such as buying things off the Internet, checking out porn sights or other sights deemed unofficial.

5. Browsing for personal items or interests. Using AOL for chatting and E-Mail.

6. Checking items not related to your personal/professional development. Stocks/bonds price quotes, sports scores are example of personal use of the Internet.

7. Shopping, non-current events (i.e., sports, entertainment, etc.) news, hobby pages, Internet E-Mail. Using Internet for other than work-related issues.

8. Using the Internet for anything other than work related issues.

9. Personal E-Mails occasional use should be okay, sending jokes, chain letters, browsing the net for shopping, travel, etc. for things that are not related to your job.

10. Sending E-Mail or web surfing not related to your Air Force duties. Passing funny E-Mail to co-workers is also personal. It may not be productive to discipline for passing occasional jokes.

11. Using the Internet for purposes either through work related while on the job (i.e., checking stock market quotes, or checking sport scores, etc.).

12. Used to read on hobbies – mine being bible study; nutrition; etc.. Using it to take care of personal issues such as finding a daycare for my newborn—I found great tips for new moms on the Internet—instead of buying a book—I can access the Internet for any questions…it puts me at ease cause when I go home, I am home -- I don't have to rush to the library for anything.

13. Looking up items that can't be used for work productivity.

14. To do anything not related to your job.

15. Using the Internet for other than official government use, for personal enjoyment or benefit.

16. Something that is not business related.

17. Anything that will not impact your work performance.

18. Any use of the Internet features to accomplish my job.

19. Surfing the Internet for purposes of "other than official business."

20. Any use of the Internet resource that does not directly relate to a job assignment or task.

21. Personal Use: not job related. If the reason for using the Internet is for personal satisfaction or gain, it is personal use.

22. Using the Internet for purely personal gain. Personal gain would be those things that are not considered job related (cannot be tied back to the job).

23. Anything not work related.

24. Searching for items to buy for private use on the Internet or searching for a new job on the Internet.

25. Any use that is not related to work.

26. Looking at sports scores, stocks, and bonds results-anything that cannot be used in the job. Shopping information unless done by supply personnel for a search for government items.

27. Shopping, doing research for a term paper.

28. Anything other than official job related access and use.

29. Use of Internet for purely personal reasons, outside the realm of official business, or professional development.

30. Using the Internet to access information that in no way impacts your job.

31. Use of the Internet for personal gain (not related to any official project). Examples include accessing sports scores, shopping for cars or other items, games, and most chat room forums.

32. Using the Internet for non-work related purposes. This does not include searches related to research for educational/training; because it enhances work skills. It also does not include professional organizations related searches when the professional organizations is related to job and it enhances the image of the military within the community.

33. Use of the Internet for unofficial purpose during duty hours or any use of the Internet during non-duty hours.

34. Anything that has nothing at all to do with the job.

35. Use that benefits the individuals rather than the job/organization. i.e.,- receiving a joke or sending one by e-mail -though it could be a stress release that results in better productivity.

36. Usage of the Internet services (e-mail, web, etc.) for reasons not related to the work that one does. However, I don't consider usage of the Internet to improve ones self, or researching career opportunities as personal - as long as it provides a benefit to the government in the long term.

37. Look up assignments/promotions.

38. Use of the Internet resources to perform functions not directly related to job responsibilities or career planning .

39. Searching for latest scores.

40. During breaks browsing the web for entertainment, going into and using chat rooms or accessing information for personal use.

41. E-mail and use of the web not to do my job.

42. Looking at completely unrelated shopping, chat sites, etc. Monitoring stock prices unrelated to civilian retirement system. Obscene sites.

43. Sending strictly personal E-Mail, surfing the web, writing personal information in applications such as word, excel, etc.

44. I would consider personal use as a perception as opposed to a definition statement. I believe that since the Air Force; DoD have invested a lot of money to put the services on the desks of millions, they (the top) should know that people are going to use government time to conduct personal business.

45. Bringing up anything on the Internet that isn't for official business only.

46. Use other than for official use only.

47. Anything not work related.

48. Using the computer for personal gain and no work value added

49. Checking news headlines, shopping for computers.

50. Using the Internet for other than work related issues, including school material.

51. Checking the news, etc.

52. Using the Internet for any task that is not job-related.

53. Anything not work related.

54. Personal browsing- non DoD.

55. Any use not directly related to the work at hand. It is important that each user have experience using the Internet so that when it is needed for work, the user is efficient & effective in any search for information.

56. Non-work related.

57. For other than government requirements.

58. Personal use of the Internet is anything that does not relate to the job, meaning if you are searching the Internet for planes tickets when you have work to do that is a problem!!

59. Anything other than what relates to your job.

60. Personal development, networking, career enhancement, personal notes to colleagues not related to program

61. Using the Internet for purposes completely unrelated to official work.

62. People checking job, stocks, games and game stats.

63. Browsing for personal items you want to find out about. Playing games on computers.

64. Games; Chat-rooms; checking stock market quote; balancing personal checkbook; running private business.

65. Any use except directly work-related (information on books, articles, etc.,).

66. Anything that is not directly or indirectly related to your mission.

67. Out of control! Gathering information for personal use or issues unrelated to work.

68. Anything not job related.

69. Using the Internet to obtain personal information that provides no benefit to the Air Force.

70. Limited within our specific organization.

71. Any type of word unofficial in nature.

72. Internet use that has no impact on your duty assignment, but makes you a better informed employee.

73. Any time spent on the Internet at work not directly related to job duties.

74. Limited time is used.

75. Anything not work-related.

76. Researching vacations, sports news (not related to AF or DoD) anything not job or mission related. Permit some education research.

77. Use of Internet to read USA Today, checking horoscopes, and what movies are playing at the local theater.

78. If its not work -related its personal use.

79. Using for home or personal use (for own gain, not government).

80. Searching the Internet for something that in not job related.

81. Review news in the morning.

82. Using the Internet for any personal gain – (shopping, browsing for personal items) anything that constitutes a personal phone call.

83. Use not pertaining to the accomplishment of a given work task or relating to the completion of common or additional duties.

84. Anything/any site that isn't directly related to the position description of the individual.

85. Anything that will not benefit the Air Force, in some way.

86. Shopping, games sports, on government time.

87. Taking considerable time out of your work day to just <u>surf</u>. If you can duties aren't getting done or if you can spend hours just "surfing" than you need to look for some new ways of improving your present duties.

Appendix C. Survey Responses: Section V, Question 2

How would you define Internet Misuse? (Please explain)

1. When you spend excessive time on the Internet for personal use and it adversely affects your ability to perform the job, or when it is used for material that is inappropriate and it gives a negative perception of the Air Force and it's personnel.

2. Bringing up, web-sites that aren't for official use only.

3. Staying on system all day.

4. Internet misuse could be described as visiting sites that are not necessarily, healthy sites to visit. It could be described as using the Internet for financial gain during duty hours.

5. Continued use of the Internet to hit sites that contain material without benefit to work.

6. Any use of the Internet that does not directly relate to job use of the Internet.

7. Whatever is defined as <u>personal.</u>

8. Blatant personal use from E-Mail to browsing.

9. There are people who spend the majority of their day reading, sending, forwarding e-mails containing dirty jokes, stories, etc. If personal use takes more than half an hour a day, I think there is a problem. I also think shopping, etc. is abuse. News-related issues are at least somewhat related to work.

10. Should be just information gathering.

11. Pornography, games, surfing, etc., unless it is strictly on your own time. Since I don't have access at home, this comes in very handy for me to get medical information.

12. What is outside of your job.

13. Visiting sites which promote: pornography, racism, on-line games, chat-rooms (non-official use of <u>push-pull</u> sites (i.e., netcast).

14. Surfing for long period of time.

15. Using it over/instead of work – not making up for the work. Using it for <u>immoral purpose</u> such as viewing pornographic material.

16. Looking up vacation spots, looking for a dog or recipes. These individuals are definitely using the Internet for personal gain.

17. E-Mailing for subscription, mail order.

18. Using the Internet for personal gain (Stock market trading, buying stuff, playing games, chat-rooms, etc.).

19. Playing games or conducting personal business.

20. More than one hour of personal use.

21. Personal browsing - non DoD.

22. Anything for personal use.

23. Using the Internet for other than work-related issues.

24. Spending more personal time than government time on the job thus hindering work performance. Downloading files that may jeopardize computer security (i.e., viruses).

25. Using it for anything that's not related to work.

26. This can involve deviant acts like passing viruses.

27. Games, pornography, etc.

28. Sending jokes, surfing for personal information, shopping for personal item.

29. Any use of the Internet capabilities (including E-Mail) which is for personal or non-work related uses.

30. Using the Internet for other than official government use, for personal enjoyment or benefit.

31. Some folks need restrictions

32. Surfing the Internet for personal use.

33. Spending too much time on the Internet not directly related to job/personal/professional growth. I believe being able to check sport scores is okay in moderation. Misuse, to me, also includes: pornographic, e-mail to pass along chain letters, subscribe to different sites

35. Non-work related.

36. Anything that is not work related.

37. Using the Internet for non work-related information.

38. Too much time spent doing personal stuff.

39. Spending more than 1hour a day form personal use. Personal use should also be limited to before 9am, 11-1300, and after 4pm.

40. Misuse: Inappropriate web pages. Pornographic, misuse representing the Air Force or using the Air Force computers for strictly personal gains. For example, making stock trades, off-duty education homework.

41. If it's not work related... then it's misuse.

42. I had heard about pornography on the Internet, and a USAF officer going to jail for downloading pornographic pictures during the duty day hours on an Air Force computer. I personally see that as misuse, whether its on my computer or the governments computer. On my computer, I would not pay money for such stuff.

43. Downloading porn, games, pictures, or entering chat-rooms

44. Downloading inappropriate information; using the Internet for personal use.

45. Anything not official while using a government computer.

46. Using it too often or using it for pet projects that get out of hand or for purely personal gain, i.e., shopping for car prices, checking sports scores or stock price.

47. Misuse is when an individual is accessing immoral sites (pornography) or when the time spent on the Internet causes one's productivity to suffer.

48. Using the Internet for more than a reasonable of time that would adversely impact job performance and teamwork needed to get the job done.

49. Using the Internet for personal use such that it interferes with you doing your job.

50. When the Internet is used for long period of time for entertainment not productive.

51. When a members use interferes with other's need for official use, or when a members job performance decreases in effectiveness quality or timelines. A member can interfere with official use by taking up communication lines etc.

52. Use that is completely unrelated to work; which prevents you or others from getting work done.

53. Using the Internet for any task that in not job-related or using the Internet to visit web sites are of a nature to bring discredit upon the USAF.

54. Not following official guidance – whether it's AF or organizational.

55. More than 1 Hr per week on personal use.

56. Personal use of the Internet during duty hours.

57. Too much time one personal sites.

58. Using the Internet for passing joke, malicious intent, pornographic material, researching stock market prices, playing games, etc. during duty hours.

59. To do it more than occasionally.

60. Anything not work related.

61. Gross misuse and abuse for personal gain or benefit.

62. Strictly speaking, any personal use of the Internet during duty hours.

63. Use of Internet resources at work which could just as easily be done with a connection from home for personnel activities.

64. E-mail and use of the web not to do my job.

65. Doing personal business on government time.

66. Any use that is not directly related to your work.

67. Limited within our specific organization.

68. Playing online games against other people, Chatting on a room that has nothing to do with job related questions.

69. Using government equipment to play games, chat-rooms, checking stock market quotes; balancing personal checkbook, or running a private business on a routine basis.

70. Visiting sites, downloading information or passing along information which is inappropriate for use in the professional work environment or spending enough time on the Internet to honestly hinder productivity.

71. Browsing the areas where there is pornography.

72. Not job related or linked to unofficial web-sites. If you wouldn't use government phone for the same types of business as the Internet you shouldn't use the Internet.

73. Time a user logs on to the Internet for non-job related activities.

74. Using the Internet to gather information for unrelated work materials or issues.

75. Connection to site not normally related to work or assignment, i.e., shopping, entertainment, or chat-rooms.

76. Personal use of the computer.

77. Accessing unauthorized sites during duty hours spending excess time on-line for personnel or professional gain.

78. Anything not work related.

79. For other than government requirements.

80. Again, I feel misuse is a perception! If we are able to measure our output and the mission is getting accomplished the only way I would discourage anyone is when I found out about misuse issues of the Internet.

81. Talking to his/her subordinates – continuously. Setting limits – but not taking the Internet away. You have to be careful not to hurt moral by baby-sitting a adults.

Appendix D. Survey Responses: Section V, Question 3

What do you feel supervisors should be doing to discourage Internet misuse if it is occurring in the Air Force? (Please Explain)

1. Do checks on computers and make sure subordinates understand what misuse is.

2. Spending more time monitoring the behaviors of their employees, and correcting inappropriate behavior.

3. Counsel personnel that are misusing the Internet in an excessive way.

4. Take away their privileges. It would definitely impact my job if I lost the Internet while at work.

5. Hold their personnel accountable to producing their workload. If the workload is sufficient, workers won't have time to play on the Internet.

6. Make office visits more often.

7. Periodically checking with employees on work activities.

8. First, confront the employee (ask them to stop). Second, reflect this misuse in their rating. If it continues, possibly take away their personnel web access.

9. Questing – Is this for official business?

10. Emphasize that Personal use of the Internet can result in disciplinary action.

11. Monitor it more - know what your employee does with his/her 8-hr day.

12. Monitor all employees—some are very blatant. Post the policy and repeat it often in staff meetings. Counsel individuals when you know they are abusing the Internet.

13. Monitor!!

14. Advice on what is acceptable and punish offenders.

15. Supervisors should do their job—where's the work output? They should be able to determine if employee looks like they are working or not. Some personnel can put down 8 hours work for doing what actually took 30 minutes. And they get by with it and actually get great performance appraisals.

16. Letter of counseling.

17. Put Internet sniffers on the servers.

18. Explaining appropriate use.

19. Verbal communication!!

20. When it is reported the supervisor should call the individual in to their office for counseling rather than making a statement to all during a staff meeting. Encourage folks to report misuse and possibly reward them in a non-monetary way, i.e., afternoon off; early departure.

21. Someone needs to monitor (spot checks) site access.

22. Correcting the problem by LOC or LOR.

23. Set office policy on accordance with Air Force policy, treat workers at responsible adults, if flagrant misuse is noted, talk seriously to the person – remove all games from PCs.

24. Limit access. I just find it hard to believe that all personnel require use of the Internet in the performance of their jobs.

25. Tell the folks the rules. So for I've never been told. I just use common sense but not all of use do that.

26. Monitor Internet use on a daily basis if abuse is suspected and administer appropriate disciplinary actions where it is necessary.

28. Not all workplaces have a need for government Internet use some supervisors that do should give a short briefing (monthly or quarterly) on the misuse of Internet usage.

29. Get rid of it.

30. Lead by example. If a problem occurs, remove the Internet from the system, counseling, paperwork, etc.

31. Take Internet of Computers.

32. Discuss what is appropriate access (according to the organization in which your currently work in). Identify what areas are off limits (be very specific with examples) and explain consequences for violations.

33. Reprimand.

34. Periodically check employees work ethics by reviewing their computer work.

35. Counsel.

36. Walk around - comment if someone's misusing & stress policy.

37. Monitor daily activities to ensure use is efficient.

38. Explain the consequences.

39. If it's abuse, ban them from having Internet access.

40. Issue polices themselves. It's easier to omit base-wide policies. I hear of times when supervisors grant unofficial use of the Internet for short periods.

41. Tell their subordinates once as to what the policy is and if they disregard it then administrative action needs to be taken.

42. Find and punish abusers.

43. Do spot checks, Get computer access logs.

44. Watch their people, tell them the policy and enforce it.

45. It appears to me they are doing all they can.

46. Insure the individual is aware of the Internet policy and give the individual more work if there is too much idle time.

47. Education.

48. Address specific misuse via tracking methods.

49. Continue what they are already are doing.

50. Make policies clear, establish strong disciplinary standards for violations.

51. A supervisor should be aware of the mission requirements and if that mission objective is not reached he should research why. If it is found out that his subordinates are using the Internet so much that their duties are being neglected the supervisor should counsel, and if the problem persists the subordinate should be disciplined.

52. Administrative punishment.

53. Wonder through your area and glance at people's computer. This way you can become aware of what others are doing. Distribute a policy (your policy on which is inline with the Air Force's policy) for your people—this makes it more personal. Finally discuss it in small meetings.

54. Correct subordinates as it is discovered.

55. Disconnect it!

56. I am unsure of a good policy for that practice. You can't take away the PC if needed for work, but may be you could remove the web browser.

57. Brief personnel on Internet standards.

58. If someone is found misusing, than take swift and appropriate disciplinary actions.

59. Ensure rules of the road are well advertised; establish consequences for misuse/abuse which are consistent across the board, employ sniffers and filters at gateways which would prevent access to unauthorized sites; would detect when someone was trying to get around those blocks.

60. Monitoring their subordinates free time more closely if they suspect it.

61. If someone is having a problem misusing the Internet. Then give them specific work tasks and a schedule to complete these tasks. In other words make sure you are getting work out of them.

62. Periodically do a walk through and check workers computers. If specifically looking at Internet misuse, the supervisor could check the "favorites" listing and go from there.

63. By enforcing Air Force policy and establishing their own guidelines.

64. Hand down the policies for the Internet and make sure that the policies are enforced.

65. Frequent meetings with subordinates to discuss Internet policy. Review examples of Internet misuse with out subordinates. Implement random checks of computer Internet history files.

66. Encourage at home Internet use.

67. Assign appropriate amount of work to personnel.

68. Continues to make folks aware of the policy. Corrects the behavior of those caught abusing the Internet.

69. Clearly define misuse and the penalties that go along with it. Treat each situation case by case. Be consistent and follow through with discipline.

70. The worst approach would be to have supervisors baby-sit the Internet activities of their employees.

71. There should be some type of corrective action taken against civilians and some type of policy that lets the civilians know that this action will be taken.

78. Supervisors are so busy with important issues that only the extreme cases will be noticed. In others words, if commanders policy fails, nothing!!!

79. Spot checks.

80. Enforce existing policies and utilize the disciplinary systems.

81. Write people up for Internet misuse (put the letter in their personal records). A particular number of times write ups are done and consequences follow.

82. Remove employees access.

83. First time, verbal warning; the second time: written reprimand; and the third time: remove Internet access from the persons computer.

84. Making people aware of the policy and educating on work-related resources on the Internet.

85. Reiterate policy and follow up with appropriate action.

86. Monitor use closely. Hold people accountable for misuse.

87. Standard reprimand policies are satisfactory and should be used.

89. Set the guidelines for subordinates so they know the policy and then monitor the subordinates.

90. Enforcing consequences for misuse.

Appendix E. Survey Responses: Section V, Question 4

What do you think the Air Force policy should be regarding personal use of the Internet? (Please, Explain)

1. Personal use should only be done on home computers.

2. They should set a side some time for moral.

3. Put more pressure on supervisors to know what is being accessed. Have supervisors document misuse and follow through with the consequences.

4. Internet use is for official use only.

5. No personal use at all.

6. Do not discourage personal use.

7. Allowable it using the Internet usage for personal use doesn't impede the mission.

8. I think people should be aware of the cost involved, not only initial cost but cost in loss of productivity, cost of paper to print found data, etc. Consequences, Consequences, Consequences. Take away Internet privileges.

9. Personal use if the Internet should be limited to lunch time period only. Supervisors should monitor the Internet's use daily, and if unofficial use is occurring, have it documented and researched.

10. It should be limited to things concerning ones, TSP, FERs, Jobs, Career programs, education and training (CBTs), news, other information from government web-sites such as Army, Navy and Air Force etc...

11. Clear guidelines on sites allowed or reasons to use Internet.

12. On your own time although this would be hard to control since some people are on a perpetual break all day. Having or not having the Internet really doesn't affect some peoples work at all – if they didn't work in the first place.

13. Use it for official business and approved morale uses.

14. Only allow individuals access to AF web sites.

15. Look for people who use web more for personal use than official use, inform supervisors. For occasional abuse, send a bad boy E-Mail.

16. No personal use allowed.

17. Not tolerated.

18. Only job related.

19. It should be the same as using <u>any</u> government equipment - cannot be used for personal benefit.

20. Verbal warnings, then documentation, then a written LOR. Then remove Internet access for individuals PC.

21. Doesn't it already? I think it's appropriate.

22. Small amounts at lunch time, etc. is acceptable. Monitoring will occur. Misuse will be reprimanded through usual channels.

24. Strict, but allow <u>moral</u> time to take care of personal business such as searching for information for family sake -- not sports.

25. Allowed with the supervisors approval in specific cases (E-mail spouse while on TDY).

26. Allow it with some limitations.

27. The Air Force should have a system block that would restrict the flow of information.

28. Use for official business.

29. Some personal use should be allowed – outlawing all personal use will cause people \ to sneak around using the Internet.

31. We should expect individuals to behave appropriately. I do not think we need a policy.

32. Limited to Air Force related subject (exchange checking out the <u>base</u> theater's show time on movies of Internet on a local Air Force web site) during one's lunch break or professional time.

33. Flexible.

34. On their personal time, for example lunch break, coffee breaks, and after duty hours.

35. Have a policy that's re-enforceable. Have simple guidelines that people will remember and adhere to. A lot of people get confused with the technical lingo.

37. Allow use to some modernization, such as breaks are used.

38. Explaining appropriate use.

39. Similar to telephone use; limited personal use, personal judgments, ethics, appropriate training.

40. Same as it is.

41. Counseling.

42. Use it primarily for official use. Use on off duty time for person use. No pornographic sites.

43. Official business only.

44. There shouldn't be any personal use of the Internet while at work.

45. It's okay if it isn't offensive material and it doesn't hamper the individuals ability to get the job done.

46. Find and punish abusers.

47. It should be forbidden.

48. Don't Allow it.

49. Personal use should be allowed during non-duty hours without the following provisions:
   a) Absolutely no pornographic web-sites will be visited (or other such web-sites that would bring discredit upon the USAF.
   b) Usage of personal nature is similar to that afforded on Air Force member who uses the telephone (i.e., calling a friend during lunch, doing bank business, etc.).
   c) Duration of personal use should be limited to lunch hours or 1 hour prior to or 1hour after the duty day.
   d) No Internet games!!

50. It could be allowed within limits and could possibly be considered a benefit. If it does become a benefit then it should be specified as an Air Force Policy.

51. Get rid of it.

52. If they use it, limit the amount of time the individual spends on-line to one hour or less. Restrict sites of porn and chat-rooms.

53. For personnel found negligent of the offense, bill the individual for Internet use and expense.

54. As is!!

55. Limited; i.e., sending or receiving e-mail to and from a spouse concerning lunch time or groceries is okay, joining a rock and roll chat-room is not okay.

56. As long as the mission is not suffering, and if the information they access in not objectionable, it should be allowed.

57. The Internet and its use should be treated much the same as the telephone, i.e., personal calls to set doctors appointments, check on the status of your vehicle in the shop; checking on family members and etc. should be allowed. E-Mails which are just chat-chat should not be allowed, with the exception of TDY personnel. E-Mail is cheaper than a phone call.

58. Limit as much as possible during normal duty hours. After duty hours, should be limited to non-controversial use. For example, should be limited to educational use, professional development or for family event planning, and PCS planning.

59. Not Allowed!!

60. Air Force personnel should be allowed to use the Internet for personal use within reason. Much like the telephone, smoke breaks, intramural golf etc… it can be advised if supervisors don't make a call.

61. Should not be tolerated.

62. That's hard to define. I don't think anyone should use it for personal use, but my definition of personal use and some else's could be quite different.

63. Personal use of the Internet should be allowed during non-duty hours, (i.e., lunch, after work, etc.) as long as the system resources are not needed to perform other duties.

64. Not allowed.

65. None. It's not productive.

66. Personal use should be allowed but limited.

67. Same ground rules as using a government phone.

68. The only effective way to control misuse is to take the option away. Possibly punishes the innocent along with the guilty, but other policies do too!

69. Better guidelines & restrictions.

70. Keep the policy as it is right now.

71. There should be a limitation to personal use and all computers should be monitored with discipline actions taken against those people that go over the limit.

72. Prohibit use – categories not related to actual work on career progression.

73. I think it should be aloud, but I also think that it would be something that would be taken advantage of.

74. As long as it's not inappropriate for the workplace (i.e., pornography, personal games, chat-rooms, etc.) and no decline in work performance has been noted, let people explore this valuable resource.

75. If it is not affecting the work that needs to be done or job performance and its legal, it should be okay.

76. I believe that it should not be allowed.

77. Personal use should be allowed during breaks, lunch hours, or after duty hours, as it is in most corporate offices.

78. Same as personal telephone calls.

79. Not to be used for personal use at all.

80. Personalize.

81. I am satisfied with current policy and safeguards.

82. Depending on frequency of use and what a person wastes surfing (subject material) could lead to dismissal.

83. I think that as long as the work is accomplished and there no complaints against the individual then there is no problem with person use of the Internet.

84. Limited use for personal reasons is beneficial in training employees.

85. I believe the policy already exist but it needs to be enforced.

86. Define misuse and provide disciplinary actions for those who don't follow the rules/policy. The policy must be clear and not subject to interpretation.

Appendix F. Survey Responses: Section VI, Question 1

Are the productivity gains from Internet in the Air Force greater than the productivity losses that occur from the personnel misusing the Internet? (Please, Explain)

1. The ability to find people/contacts quickly and efficiently as well as research topics more efficiently have increased my output far beyond the loss of a few minutes browsing a news article will.

2. I can only speak for my section. I believe the productivity gains from the Internet in the Air Force is greater that the productivity losses that occur from the personnel misusing the Internet.

3. I've found that I can get a lot of information for my job using the Internet. The various home-pages available from organizations is beneficial. If supervisors were on-top of what their people do, there would be very little misuse of the Internet.

4. Neutral

5. The web provides incredibly easy access to information critical to job performance. It also cuts down on the need to store information in personal piles (i.e., saving physical space). E-Mail is much more efficient to send mail or even the phone in most cases.

6. We only have a productivity loss when the existing policies are not practiced.

7. Have no problem with light personal use when it does not interfere with job performance or customer service. Also it should not cost the government an additional fee. How is it we can access AOL or Yahoo? Restrict the access to unnecessary Internet functions.

8. Someone spending ½ hour a day on the Internet for approved reasons does not affect the productivity level. No more excessive than any other addictive activities (smoking, socializing, or calling friends on the phone, etc.).

9. As employees become efficient and comfortable using the Internet it will be a tool of choice for doing their job better. It is apparent that the Internet will be an integral part of our work in the future.

10. The Internet provides a gain in productivity much more than a loss of it.

11. Yes, it's much easier to do my job now that I can get information from AFPC, AFMC, etc. It takes less time to get the necessary information, which increases my productivity.

12. We are suppose to be operating at our most <u>efficient</u> level. Some folks are overwhelmed with work while others surf the Internet and pass jokes & chain letters back & forth all day. It is very frustrating for some of us who feel we are carrying the load for others. Eliminate the others (deadwood) and promote the lower paid employees with the money that is saved from not carrying (deadwood).

13. This is a difficult question to determine and answer. With out having actual stats available, it is difficult to determine if the gains are greater than the losses or vise-versa.

14. Everyone is entitled to a short break in morning and afternoon. A little common sense goes a long way.

15. Scientists surfing for data collection in support of research may be justified. Normal day-to -day operations do not normally require the use of the Internet service. Computers should have no more programs on them than are absolutely necessary in the performance of the task at hand. Nice-to-have is a waste of resources.

16. Depending on the organizations mission, units without a need should may be have a central location for the Internet access. Those organizations who have a mission to support multiple access, should closely monitor them.

17. Well, I am speaking from experience here. I have seen people who are unproductive whether, they have the Internet of not—they would fined something else to do such as talk on the phone. The Internet is not the cause of unproductively the <u>use</u> of it may be a result of an unproductive person. Actually the Internet has made us more productive with the massive advance of information. We are able to pass out & take in information. So many people come to us because of our web page & the exchange of information (job related) is immense!! We are able to communicate with our users (ALL MAJCOMS) with just one web page, also—we don't have to bogg down our E-Mail or wait for the post office. The Internet is quick!!

18. I don't personally see it as a problem. People will waste time on other activities, not just surfing the Internet.

19. I use the Internet to find resources. I use it to check stocks/mutual funds. As the financial counselor for the base the Internet gives me a lot of up to date information to keep a client make a more informed decision.

20. Gains far outweigh losses – treat us as adults and we will act as adults.

21. A certain amount of misuse inevitable if the system is to be open enough to be user-friendly or useful. As a supervisor I do not want to spend significant time policing Internet use. These are the reasons I would tolerate a certain level of misuse. As noted before: E-Mail is the primary productivity enhancer. Access to the World Wide Web is probably results in a significant net loss.

22. Yes, we gain too much from the system to be worried about misuse.

23. The Internet is a vast source of knowledge. A lot of organizations are using web pages, etc. to publish information. As part of the Air Forces goal <u>paper-less AF</u> the Internet helps us reach that. Yes, I believe the Internet is worth productivity loss, as long as the loss does not exceed the gain.

24. Yes, because a lot of information is at your finger tips, without having to do lots of research.

25. I don't think that there is a productivity loss. There are so many things the Internet does for the user, that we do not notice.

26. Self Explanatory...If you're using the Internet for personal use on government time, then obviously your not being productive.

27. I believe most people use the Internet for new rather than stock quotes, ball park scores, etc. Therefore, productivity gains are higher. On the other hand, there will be people who flat out misuse the Internet and cause the Air Force to suffer from their lack of productivity. These are people who should be handled separately and accordingly.

28. Yes.

29. Is there a productivity loss? If yes, then there is a problem.

30. I am not aware of misuse and do not agree that there is a productivity loss. Certainly the benefits of rapid information exchange outweigh the cost of supporting the infrastructure that is so useful.

31. Yes, productivity outweighs the losses. They're only a few individual who don't enforce and obey the policy. In my work center, it is an invaluable resource for research.

32. I don't know!! I haven't had that much experience with Internet use Air Force wide.

33. I believe so. More times you can gain valuable information much quicker and can use the new policies quicker. Some programs are helpful, for example, travel in the Yahoo section can give mileage from Wright-Patterson Air Force Base to wherever. To compute travel days and what entitlements a member gets when separating.

34. Be serious, this is the dawn of a technological boom! With any new system there will always be pro's and cons, but most of us <u>normal</u> humans lack the discipline to only conduct official business on the net. We are typical kids in a candy store.

35. Yes, we are much quicker and much more efficient.

36. E-Mail and information retrieval on the WWW is absolutely essential. Times have changed, but people haven't. If people did not goof off on the Internet, they would find something else to waste time on.

37. I do not see any loss of productivity. If there was then those people who are having the problems should cease to <u>play</u> on the Internet. What I see happening, is that some people don't have enough work to do to occupy them for 8 hours and so they browse the Internet.

38. I think the gains are greater. I know it would be hard to do my job without it.

39. I feel that there is going to always be something that will cause productivity loss. Before the Internet it used to be newspaper reading. This seems to be replaced with <u>on-line news</u> reading. To me it is an acceptable loss. However, I strongly discourage chat-room use and game use. These provide no true intellectual gain when compared with general news oriented topics.

40. Although I am not so blind to believe misuse doesn't occur, Its being done by the same people that misuse other government resources. And this hasn't negatively impacted productivity to the extent it outweighs the benefits of having those resources available. The shear economics of the Internet, and the information that is available to help us be more productive, and thus more efficient, are enough to outweigh any losses. Many people use the Internet to research work-related information and make decisions in a more timely manner—a written request for information might take weeks or months, where the Internet search might provide the information in a few hours.

41. I think it is worth the productivity loss because some people don't abuse the system and it is fine to be able to check things every once and a while.

42. The Internet has helped me do my job more efficiently. I haven't seen anyone abusing the Internet at work, yet.

43. The Internet is a communications medium, like the telephone. Imagine saying that the telephone isn't worth the productivity loss. What would we then use, the mail system? Productivity loss is a function of management, not the Internet. If the management supports its people, encourages them to better themselves, provides a productive and learning environment where people want to do a good job because they a sense of accomplishment, misuse of the Internet will be minimal. Certainly there will be <u>bad apples</u> out there and that's given and we have to deal with them in the same way as we always have. It's hard to put a number on productivity loss versus gain. However, I would say that the gain far!! Outweighs the loss. Perhaps, I'd even go as far as saying that for every person misusing the Internet, there are at least one or more that are gaining a great deal of information for the benefit of the government.

44. Rapid development of technology requires fast, broad dissemination of information. The Internet is the single greatest medium for performing this necessary function. I don't think we have a choice but to use it, especially as information sources become increasingly web-centric. Like anything else, it is merely a tool- misuse is the responsibility of the individuals accessing the Internet.

45. I think its worth the loss because the vast amounts of information can assist you in doing a better and more productive job.

46. The Internet is a good tool to increase productivity. I don't think its being abused by most personnel.

47. Misuse - Time wasted.

48. I feel that it is worth the productivity loss. The employees find it easier to do their jobs and when their job is finished, can enhance moral by allowing employees to plan their vacation or maybe get ideas for projects. I also feel the more emphasis a company puts on personal computer use being bad the more people will not want to use it.

49. Internet is not worth the productivity loss. Easy access to the Internet corrupts people to start using it.

50. Yes, when standards are kept the Internet provides a world of work related information at a fraction of the time and cost of other sources.

51. I feel that there is much to be gained from having access to the Internet. There is so much time saved from what an individual can obtain themselves that it far outweighs Internet misuse.

52. Correct subordinates as it is discovered.

53. Yes the gains, outweigh the losses. Online training is a major benefit. Many government agencies now have a web page. Data bases can be put on-line , the Internet is very useful and can and will be much more useful to doing our jobs.

54. No! Anyone I've observed is only on the Internet for a few minutes for personal use and then, usually when on break.

55. The productivity gains outweigh the productivity losses because most people in the Air Force do not abuse the Internet privilege. These without use it strictly for work use have found it helpful to the job. I for instance, would be lost without the ability to directly access AFIs, I would not normally have access to. In addition, I can communication without overseas locations without having to deal without the time differences.

56. I am unaware of the total productivity gains or losses.

57. I think if it was paid attention to by co-workers and supervisors—there wouldn't be a productivity loss.

58. I'm for the Internet. There are so many things we can do with it and I feel it's much too important to get rid of simply because some people can't control themselves.

59. I am not aware of extensive misuse of the Internet.

60. Using the Internet (productivity loss) is worthwhile as stress reliever. This is only time when used during a natural break (i.e., lunch break). But not all day.

61. I don't feel the Internet use has caused a productivity loss. All personnel in areas that I have worked in only use it for minimum personal use. The main usage is to increase job – productivity. The Internet enables us to do a better job.

62. I can only speak for myself and the people I work with and I feel the Internet enhances our productivity. On the other hand I have heard of people entertaining themselves most of the day on the Internet.

63. Productivity gains are greater. We wouldn't be able to keep up with the current pace of activities without e-mail and information available with the Internet. Paper wouldn't be as effective today.

64. I feel personally that I gain a lot from the Internet. Being able to locate information and sites on pertinent issues - children, parenting, and mentoring etc. We live in the information age and to make myself competitive with the access non-military sector. I feel that Internet is necessary - just like having reference material on the shelve in my office. To lose Internet capability would be taking a giant step backwards.

65. I am unaware of any productivity loss. Proper use of the Internet has allowed my organization to reach more of our customers with a timely , consistent message. I can't imagine doing our business without the Internet.

66. I think it's all equal at this point. Having the Internet does increase productivity (accessing information quickly, less research time involved, etc.) However, with the amount of personal time spent on the Internet less work is being accomplished that should be.

67. I don't know what the government is paying for all the Internet access, but I would imagine we lose more in productivity than we gain. Why not have some kind of limited access - only government sites (the government owned Internet) and no other access available. That way relevant & current information would still be available, but people would not be able to go outside government lines, so to speak.

68. I don't know that much about it but from what I've seen the person's job usually gets left undone or another person picks up the load.

69. The access to AFPC is efficient.

In your opinion, do you believe that the Internet is used more for official use or unofficial use? (Please, Explain)

1. Official.

2. Probably unofficial. I see folks looking up vacation options, soap opera sites all the time. I don't notice as many (or any) government sites up on the monitor.

3. Unofficial use because of liberal Internet policy.

4. Definitely official use is more frequent.

5. More for official use.

6. Official.

7. More official use at least for the people I know.

8. If we are talking about at work, I think it's official use.

9. Working where I work I believe the Internet is used more for official than for unofficial use.

10. Not quite sure but I would say it is used more for official work related issues.

11. I suspect that the Internet is mostly used for unofficial purposes.

12. Official. Most individuals are honest (basically) and will use the Internet as they would any other time.

13. Most of the Internet use in my workplace that I am aware of is for official business.

14. Official.

15. Official use within my immediate section.

16. Official.

17. Unofficial use.

18. Official (hopefully).

19. Official.

20. Half and Half.

21. Believe it is used for official use.

22. The Internet is used more for unofficial use.

23. Official, I would hope.

24. Official use.

25. Mostly official use.

26. Unofficial use; because of the newness, curiosity and availability of technology that we know will sooner or later have to be used whether we want to or not.

27. More for official use due to organizational and Air Force policy in regards to use of the Internet.

28. Official.

29. Unofficial use: printing information on gambling trips and surfing the Internet for information of biographies of a beauty pageant.

30. I would expect it is used more for official use only.

31. I can only speak for my work area. The Internet is used for official business only.

32. Based on personal observations, the Internet is used more for spreading jokes and playing games than for official business. What I've seen on the Internet could just as easily come out at a staff meeting.

33. Official.

34. Unofficial.

35. Yes, in my office anyway.

36. Much more for official. In a 40 hour week, it is tough enough to accomplish your assignments and work related obligations.

37. We only hear about the bad stuff so I feel there is probably a lot of official use out there.

38. I believe it may be used an even amount both for official as well as unofficial. There may be some individuals who spend more time on personal, and there are others who use the Internet more for official.

39. Yes!! A large percentage of our PA work & day to day business has to do with exchange of information we can do all of this in a matter of hours/minutes with the Internet... It really saves time & money!!

40. Official – I don't know of anyone who stays on the Internet all day.

41. From my personal knowledge, the Internet is used more for official business than unofficial.

42. Unofficial use.

43. Yes, most people are ethical and follow the rules.

44. For my us, more official. I need access to encyclopedias which are not at my fingertips in hard copy any longer.

45. It is worth the productivity loss because in my own experience, it is outstanding to have the Internet wealth of information to have at your fingertips. And as with anything, there will always be people who abuse good things.

46. Official use. Most work is purely official or partly official reading, computer news as a computer branch versus pure fun (Dilbert once per week).

47. Official.

48. For those of us with integrity, it's used more for official use.

49. Official use. That's been my experience.

50. Official.

51. More for unofficial use, otherwise why put in on the computers.

52. Official use.

53. Official.

54. In the Air Force...Unofficial...including contractors...are the real problems.

55. Official.

56. Official - I see the people that misuse the Internet are typically the "goof-offs" (i.e., take 15-20 minute smoking breaks each hour, take lengthy lunch breaks, come to work late & leave early, etc.

57. The productivity gains are greater than the losses due to misuse because I personally would be unable to perform my job without the Internet. Mission requires me to be current with the latest in computer technologies, because of the speed of change the Internet is the only way I can do this. Also, a slight majority of people use the Internet for official purposes. It would be fairly easy to fix the misuse problem.

58. Official use, people use it mainly for their jobs, but the Air Force pushed the whole person concept to be well rounded as an individual you must be knowledgeable in a lot of areas. The Internet is an excellent means to keep up with current information.

59. Unofficial.

60. Official.

61. Morale is important, with downsizing, RIFs, and uncertainty abounding- give the folks something to play with but limit usage times and provide specific guidelines.

63. In my section, official use.

64. Probably even, most organizations we interact with are placing more detailed information on the net. It makes it a lot easier for us to get the information. When the need arises, we do it for long periods of time; yet its not consistent throughout the year. Unofficial use probably happens for 15-30 minutes twice a week! If you average both throughout the year, only guess is that they would average out.

65. Official.

66. Yes, I have never detected personal use of the Internet by anyone here.

67. In my section, I believe that the Internet is used more for official use.

68. Mostly official by military members, however I know of several civilians that use it for personal use.

69. More for official use!! The E-Mail functions allows messages to be transmitted at a fraction of the time and cost of messages and normal mails means.

70. I would hope more for official business, but I know as well as the survey knows, that it doesn't happen all of the time.

71. Official use.

72. Official. Pace is too quick in the Air Force for the majority of time to be wasted.

73. I would guess that the Internet is used more for unofficial use.

74. I believe that the Internet is used more for official use than unofficial use. Mostly because people know and have heard stories about other members getting in trouble for Internet abuse.

75. More official, it's replacing hard copy correspondence because of the efficiency, as well as telephone call to ensure the recipient "gets" the word. And, unfortunately the Internet is also replacing personal contact in a lot of instances where it shouldn't. The misuse or unofficial use of the Internet is probably in proportion to the unofficial use of the traditional methods of communications.

76. Official use. I think that most people have the integrity to use the Internet for its work-related purpose.

77. Slightly more for official use. The immediate availability of the Internet makes it easy to misuse. Enforced, clear guidance would significantly reduce misuse. I also think that Internet misuse is just part of a bigger computer misuse problem. If government computer resources are used to develop and print a church bulletin the culprit is just as guilty as they would be when they see who won the ball game last night.

78. In my section it had better be strictly business.

79. In my office, I feel it is used much more for official work.

80. More for official use.

81. Call me old fashioned, but I still believe our people are using it more for official use.

82. Official.

83. More for official use.

Appendix H. Survey Responses: Section VIII, Question 15

As a supervisor have you experienced problems among your subordinate's Internet use, if so how have you dealt with the problem within your organization? (Please, explain)

1. No.

2. I have directed that all games be removed from PCs.

3. Delays in completing assigned work. Apathy towards the job.

4. No.

5. None.

6. Remind them about the policy. Tell not to stray away from the policy.

7. Haven't experienced any actual problems, but I know my employees are using the Internet for personal use.

8. None.

9. Yes, tell them what is acceptable and enforce the rules.

If you believe that there is a problem with Internet use among your subordinates, what types of productivity losses have you experienced within your organization?
(Please, explain)

1. None.

2. None.

3. None.

4. Wasted man hours.

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13. ABSTRACT (Maximum 200 Words)

The Internet has become one of the most used technological devices in the United States. Air Force members too, have become dependent on the Internet to complete their work. The Internet offers many features that are important to the members of the Air Force, but the Internet also offers features that may interfere with the member completing their assigned duties. This thesis will address the misuse of the Internet by Air Force personnel and how the Internet affects the productivity of the members within their work environment. This thesis also looks at the problem of personal use of the Internet and what steps the supervisors can take to decrease Internet misuse. Finally, this thesis will propose a new Internet policy for Air Force.

The research shows that the members of the sample population believe that the Internet does not affect their productivity levels while at work. The research also shows that the members believe that the misuse of the Internet does not outweigh the benefits that the Internet provides to the members. The members also feel that the supervisor should play a larger role in controlling the Internet as well as establishing local Internet policies in accordance with the Air Force's current policy.

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3. **Please estimate** what this research would have cost in terms of manpower and dollars if it had been accomplished under contract or if it had been done in-house.

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      Significant   Significant   Significance

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